

From Craft to Co-Creation: AI as Collaborator in Fan Localisation

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Abstract

AI integration in creative work has taken a significant position in the creative industry and the fan-localisation of creative content. While existing research studies the phenomenon, it leaves a gap in verifying the role of AI in changing the pattern of AI creativity and the influence it has on authorship, throughput, and exit intent among the participants of human-AI collaboration. This research aims to document the role of AI tools in reconfiguring workflows, reassigning tasks, and influencing the meanings of authorship, skill, and value in a fan localisation group, by addressing the question: how does the introduction of AI assistance reshape labour division, quality control, and identity narratives within a fan translation community? Accordingly, the research conducted a survey of $n=200$ participants using a Likert-scale-based questionnaire that was studied using a multiple regression analysis process. The findings reveal that AI increases the translation throughput significantly while increasing the disputes over authenticity and quality of the process, which illustrates the technical pressures and motivates the retention of the participants. The research contributes to the greater discourse of AI-human creative work and the impact it has on community participation and the retention process.

Keywords: fan-localisation, AI-assisted translation, communities of practice, identity and authorship, sociotechnical systems

1. Introduction

1.1 AI-assisted Fan Localisation and Changing Creative Workflow

While digital media had enhanced the space for fan communities to emerge, AI has enabled the predominance of fan-localisation of translations that changed the dimension of creative workflow. AI has enabled fans to create high-quality original content that has claimed authenticity by reducing the degree of manual labour input, making it indistinguishable from human-made content (Kal, 2018). The translation of cultural works, including novels, web-novels, films, and others, relies heavily on crowdsourcing, which reduces manual human labour. These kinds of crowdsourcing work are performed by groups of non-professional volunteers, which include non-profits, institutions, and groups or individuals, often operating through online community spaces, sharing their varying degrees of knowledge, heterogeneity, and flexibility in the approach to content (Jiménez-Crespo, 2018; Jiménez-Crespo, 2022). These approaches have allowed the collaboration of the volunteers through a distributed workflow that has created a reconfiguration of the labour. To that end, there have been rising debates about such kind of work over the ethical position and quality control of these works, while also asking about the efficiency of these volunteer translators (Jiménez-Crespo, 2021). Accordingly, this raises a concern about the quality and ethical position in the works created through the human-AI collaboration and the effect it has on the throughput.

1.2 Human-AI Collaboration and Effect on Quality and Throughput

With the rise and development of Artificial Intelligence (AI henceforth) and its various technological components, such as machine translation (MT), large-language models (LLM), and computer-assisted translations (CAT), the translation process has undergone a hybridity in the collaboration between machine and human. Chen and Guo (2024, pp. 225-226) note:

Traditional translation methods...are increasingly supplemented by machine translation (MT) systems and computer-assisted translation (CAT) tools...[which] demonstrate impressive results in certain contexts, such as technical and scientific domains, [even though] limitations persist regarding cultural nuances, idiomatic expressions, and complex syntactic structures.

This posits the AI tools at a critical juncture of creative work where they are used as an assistant to the human translation roles that are aimed at refining the output presented by human labour rather than aiming to replace them in the process.

However, research findings by Liu et al. (2024) found that human-machine collaboration in creative work has the potential to meet the quality standards set by purely human translations; they also note that these human-machine translations often exceed the quality of human-only translations while also performing the work in cost-effective manners. However, Li (2025) notes that while AI translations can speed up the process by increasing accessibility of cultural products in the global space, these outputs often lack the narrative coherence, emotional connection, and cultural nuances, if conducted in the absence of human intervention. Human collaboration is found to restore the idiomatic meanings, character identities, and symbolic meanings that improve relevance and immersive experiences, thereby affecting the throughput.

1.3 AI-based Fan-Localisation and Authorship Debates

While fan-localisation of cultural texts serves to expand the cultural boundaries of these texts, the integration of AI in these fan-localised translations and creative works questions the integration of communal identity and collective authorship. A research study by Temuçin et al. (2024) on the Turkish population found that localisation exists in various domains, including literature, media studies, marketing, video games, websites, and software localisations that serve as a tool for cultural planning and advancement. Alternatively, various media companies, such as ESPN, DAZN, or OneFootball, leverage AI for multiple forms of sports news personalisation for the users, including generating localised content, despite the rising concerns of data governance and ethical transparency (Leite, 2021). To that end, AI is used significantly for multilingual translations in the fan-localisation industry, which enables a cost-efficient and less complex approach to personalised content curation for the fans and boosts engagement, which removes barriers to content engagement (Butterworth, 2025). These approaches are seen to make the localisation work efficient, whereas they raise concerns about the authorship of these contents. Unlike the identifiable authorship of traditional human-generated content, AI-content raises concerns about the valid credibility of authorship and rights (Mazzi, 2024). This establishes the foundation for the current research, which aims to address the collaborative throughput and the input-output debates where concerns arise about the practices and voluntary contribution of the human participants in the AI-oriented localisation criteria.

1.4 Research Aim and Hypotheses

This research aims to document the role of AI tools in reconfiguring workflows, reassigning tasks, and influencing the meanings of authorship, skill, and value in a fan localisation group. Accordingly, this paper addresses the research question: How does the introduction of AI assistance reshape labour division, quality control, and identity narratives within a fan translation community? In doing so, this research has established a set of hypotheses:

H1: AI increases throughput but creates disputes over authenticity

H2: Hybrid workflows lead to formalised review practices and new role emergence

H3: Some volunteers exit while others gain status by curating AI output.

Variables: Independent — degree/type of AI integration; Dependent — productivity, perceived authenticity, retention rates; Controls — project genre, community size, volunteer experience.

1.5 Research Gap

The current research builds on the gap identified in the existing literature to study the influence of AI in fan-localisations and translations conducted through the human-AI collaboration. The existing literature displays a significant gap in empirical research findings on the influence of AI in the distribution of labour in fan-localisation based on roles and task allocation. These studies also display a gap in the clarity of how AI influences the authenticity of community standards, planning, and authorship in the community practices of translation in the fan-localisation process. It also lacks the verification of the throughput, whether the workflows promote the QA routines among volunteers and their retention dynamics. Accordingly, this research addresses the gaps by quantifying the contribution of AI through its collaborative process and the arising disputes of authenticity and volunteer retention through sociotechnical mapping of fan-localisation.

1.6 Rationale and Significance

The primary rationale for conducting this research is to meet the research gap identified from the existing literature by using the empirical approach for verifying AI integration to restructure the ecosystem of volunteer participation. The research focuses on non-commercial fan content driven by the fan communities of cultural works, such as games, films, manga, anime, and others, to demonstrate the technological adoption through collective norm establishment instead of market incentives. Accordingly, the research contributes to this gap through regression analysis of a survey conducted among 200 fan participants, to study their role assignment and contribution of work by collaborating with AI. To that end, it also verifies the intention of exit among the volunteers driven by traditional norms of working as well as the potential for gain and improvement among those adopting the new means of AI-human collaboration in fan-localisation throughput. The research contributes to the broader discourse through theoretically grounded research to introduce AI curatorship as

a prestige pathway to verify the exit intention and the reconfiguration of productivity, governance, and credibility of authorship. The research contributes to the broader studies by identifying the variations emerging in community-based fan-localisation through the changing throughput that drives the intention for performance and participation among new volunteers in the process.

2. Theoretical Framework

2.1 Sociotechnical Systems (STS) Theory

The paper applies the sociotechnical systems theory as an evaluation of the collaborative structure of human-AI fan creativity that views both components as interdependent on each other for the quality, authenticity, and output. The theory originated as an approach to improve the working systems of Britain's coal mines under the British Coal Board by leveraging the knowledge and skills of the workers to deal with the new technological uncertainties for adaptation (Pasmore et al., 2019). To that end, the original claim of the theory was to establish productivity through social stability and psychological well-being of the workers by identifying the mutually constitutive framework of new technological arrangements (Trist & Bamforth, 1951). This mutual interaction shapes group structures, roles, and worker psychology, which in turn influence the functionality of the technology, suggesting that social and technical are not mutually independent and form an interactive sociotechnical system. The visual model in Figure 1 represents a framework of a working organisation where the people work within specific infrastructures through certain processes to meet specific goals and metrics using technological tools guided by certain cultural assumptions (Leeds University Business School, 2022). This framework is applied in the current research by identifying AI as the new technology and its mutual interaction with the fans (forming the worker component of a virtual organisation of the fan community). Accordingly, it evaluated how the integration of AI in fan-localisation and translation works has altered the authorial position in creative work. It evaluated how the AI technical workflows and digital platforms are influenced by the everyday cultural perspectives and processes. It verifies the alignment of the sociotechnical system through the integration of AI in creative fan localisation of cultural art and evaluates the collaborative process of human and AI and the redesigning of the modern digital space for the participation of fan communities for effective throughput and quality.

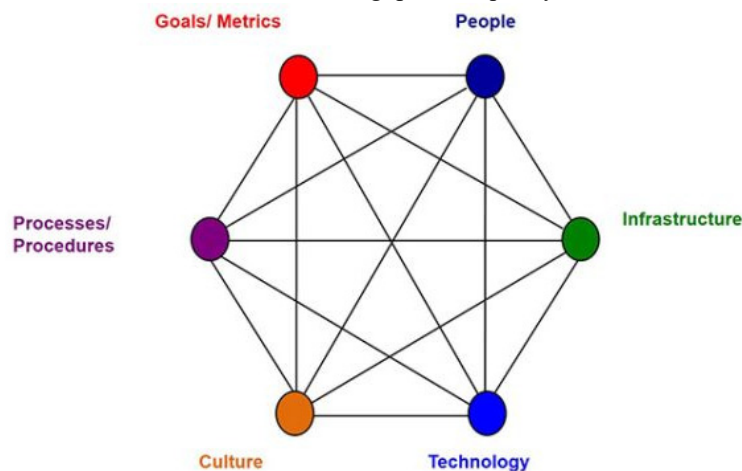


Figure 1. Visual representation of the sociotechnical systems model (Leeds University Business School, 2022)

2.2 Communities of Practice (COP) Theory

The second framework that this research applies, together with STS, is the communities of practice theory, which views learning, identity formation, and expertise development through the participation in a shared space for community practice of common norms and standards. Emerging as a theory for evaluating learning practices, the communities of practice refer to the “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger, 2011, p.1). In the context of digital media technologies, the Internet has extended its accessibility and usability among the participants, increasing their interaction beyond geographical barriers, expanding community formation processes based on shared practices. To that end, Lave and Wenger (1991, p.29) noted:

Learning...as situated activity has as its central defining characteristic...[called] legitimate peripheral participation...[where] learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community.

This theory is applied in the context of this research to identify the fan communities as the groups or communities of participation in the AI-based fan localisation of the creative work. It studies the formation of legitimate contributions by the integration of AI in the fan localisations and translations by the fan communities that form a participatory culture

through shared interests. Accordingly, it studies the role of AI in verifying the legitimate contributions and the altered trajectories of the creative roles that redefine the standards and norms of authorial values and authenticity of the creative process. To that end, integrating the COP framework together with STS in this research study, the distribution of labour and the operation system of the collaborative human-AI designs in creating fan-localisation of cultural art, such as anime, games, manga, films, dramas, novels, and such.

3. Methodology

3.1 Research Design

The research applied the quantitative cross-sectional survey design to capture the opinions and perceptions of the research participants through their self-reported behaviour towards the AI-integrated roles in fan localisation at a single point in time. This approach is guided by the observations of Kinyua (2023), who notes that cross-sectional survey-based research makes the process convenient and easier when the survey data is collected from a heterogeneous sample of the individual population and gathers information about a single point in time. This design is adopted to examine the varying levels of integrating AI in the fan-localisation process through productivity increase, concerns of authenticity, emergence of new roles, task allocation, and the exit intention of the participants. The data collection relies on questionnaire-based tools that enabled the research to perform hypothesis testing of the three hypotheses. To streamline the research process, these hypotheses were further structured by creating sub-sets as follows:

- H1a: Higher AI integration increases translation throughput.
- H1b: Higher AI integration increases authenticity-related disputes.
- H2a: More hybrid workflows lead to more formal review practices.
- H2b: More hybrid workflows lead to the emergence of new community roles.
- H3a: Higher AI integration increases volunteer exit intention.
- H3b: Volunteers who curate AI output gain higher status.

Accordingly, the study has identified the independent and dependent variables of this research. These are degree and type of AI integration (independent) and productivity, perceived authenticity, and retention rates (dependent), along with the control variables of project genre, community size, and volunteer experience. The research does not use any qualitative strands other than the descriptive references to community role assignment that operate the AI-human collaboration in creative workflows.

3.2 Sampling Processes

The research adopted the non-probability purposive sampling technique for the selection of the survey participants based on their suitability for the criteria of participation in the localisation and creative AI-based translation workflows. Purposive sampling is assumed to be a subset of the convenience mode of sampling where the participants are chosen as per their closeness and fitting position justifiable for the set research objective, as per the subjective preference of the researcher (Klar & Leeper, 2019). Accordingly, for this current research, the survey participants are selected based on their active and recent participation in fan localisation works using AI. The participants are contacted online to reach out to 200 participants who make the final sample for the regression analysis using a multiple regression model for this research. Accordingly, the purpose of this approach was to strengthen the validity of the findings while maintaining the ethical prerequisites of the study. The ethical position of the research is maintained by obtaining the informed consent of the participants, who were informed about the purpose and process of the research. Accordingly, it maintained the anonymity of the research participants through its complete refraining from presenting any personal information that may disclose the identity of the participants. Accordingly, no community-sensitive metadata were even collected for this research.

3.3 Data Collection and Tools

The data collection for this research was conducted through a closed and structured questionnaire that collected the responses of $n = 200$ participants. The responses of the survey participants were measured using a Likert-scale metric as a tool, where the questionnaire consisted of screening items, demographic variables, and psychometric constructs to measure the roles of AI, curators, and the increase of productivity, and the shift in role allocation. The items for the questionnaire were constructed based on a review of previous literature on topics such as AI-supported translation, authorship, translation communities, and productivity within the field of translation studies. The construct measurements were operationalized using a number of Likert-scale gradings relating to each variable in the study. The use of the Likert-scale tool is justified by its identification of the opinion of the participants through a five-stage metric for expressing their degree of agreement and disagreement with a specified opinion (Batterton & Hale, 2017). The questionnaire supported the asynchronous participation of the respondents, while the Likert-scale metric enabled the statistical modelling of the latent constructs by revealing the predictability of their

relationship. To that end, the role assignment logs are not used as standalone data in this research, but are rather used to contextualise the interpretation of the role categories by the participants.

3.4 Data Analysis

The analysis of the collected data is performed through the quantitative approach with descriptive statistics initially to summarise the demographic findings, followed by performing a correlational analysis that evaluated the initial associations between the variables of the research. This approach helped to assess the strength and direction of the correlation between the integration of AI and the resulting productivity, concerns of authenticity, role emergence, status, and the exit intentions of the volunteer participants. The research adopts the multiple regression modelling as the primary data analysis framework for hypothesis testing, where each of the three pairs of hypotheses is tested through the regression of the relevant dependent variables on their appropriate predictors. This helped to estimate the predictive strength using the beta coefficients and explain the proportion of variance (R²) for the interpretation of the degree of AI integration in fan-localisation and creative translation process. The statistical analysis is performed using the standard analysis tools using valid linear models to reveal continuous or pseudo-continuous variables on the Likert-scale measures.

4. Findings

The study collected a total of 200 valid responses, providing sufficient data to evaluate the effect of AI on fan localisation practices and community dynamics. This chapter begins by giving an overview of the demographic information related to all participants, provides a reliability analysis for all measurement scales, and reports correlation patterns and regression results to test our hypotheses. When put together, these data will provide an overall understanding of how the adoption of AI in fan translation impacts how the community views itself, the productivity levels it achieves, provides perceptions of authenticity, structures in which to review the work produced, and establishes social and economic hierarchy within the fan community.

4.1 Demographic Analysis

Table 1. Demographic descriptive

Category		Frequency	Percentage
Age	18-30 years	130	65
	31-45 years	48	24
	Above 45 years	22	11
Gender	Female	102	51
	Male	80	40
	Non-binary/third gender	14	7
	Prefer not to say	4	2
	< 6 months	25	12.5
Tenure in Community	1-2 years	56	28
	2-5 years	62	31
	5+ years	17	8.5
	6-12 months	40	20
Hours per Week	1-3 hours	40	20
	13-20 hours	44	22
	4-7 hours	49	24.5
	8-12 hours	50	25
	More than 20 hours	17	8.5
Primary Genre	Anime/manga	56	28
	Films/dramas	36	18
	Novels/web novels	22	11
	Others	16	8
	Video games/ Apps	70	35

Table 1 shows the demographic analysis of the 200 respondents who were engaged in fan localisation activities. The sample is quite young, with the majority of the population aged between 18 and 30 years (65%), then between 31 and 45 years (24%) and only a small percentage of students aged above 45 (11). There is a slight female majority (51%), males constitute 40% and a small percentage of non-binary or not wanting to declare their gender.

The participants will be of different durations of community involvement. Approximately one-third (31) said they had been involved 2-5 years, and 28 said 1-2 years. The newer ones (less than 6 months) comprised 12.5 and 20% had between 6 and 12 months of experience. The level of engagement was moderately distributed: 1320 hours/week (20%), 47 hours/week (24.5%), 812 hours /week (25%), 1320 hours/week (22%), and over 20 hours/week (8.5%).

By the genre of the project, video games and apps occupied the first place (35%), then came anime/manga (28%), and films/dramas (18%). Other (8%) and novels and web novels (11%) were not so common. This implies a wide but gaming-oriented participant base.

4.2 Reliability

Table 2. Reliability

Variable	Cronbach's Alpha	N of Items
AI Integration/ Hybrid Workflow	0.849	4
Curator Role	0.756	3
Productivity	0.796	4
Authenticity & Quality Concerns	0.792	3
Review Practices	0.834	4
Role Emergence	0.774	3
Status	0.765	3
Retention	0.753	3

Reliability of all measures used in the research study can be seen in the table provided above. The Cronbach's alpha coefficient for all measures are between 0.753 and 0.849. This signifies that the scales are reliable because they have either high or acceptable internal consistency. Review Practices, Productivity, and Role Emergence are all within a high level of reliability, while AI Integration/Hybrid Workflow is highly reliable ($\alpha=0.849$). All the measures can be used further statistically since their reliability values are satisfactory.

4.3 Correlation Analysis

Table 3. Correlation

	AI Integration/ Hybrid Workflow
Productivity	.701**
Authenticity & Quality Concerns	.789**
Review Practices	.738**
Role Emergence	.838**
Status	.819**
Retention	.832**

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 demonstrates that there are strong and significant correlations between AI Integration/Hybrid Workflow and all outcome variables, which implies that an increase in AI use is always linked with significant changes in community practice and experiences of its members. Role Emergence ($r = .838$) is the most significant relationship, which indicates that the more AI is integrated, the more new specialised roles are developed. Correlations with Retention ($r = .832$) and Status ($r = .819$) were also very high, which shows that AI has an impact on the further participation of the volunteers and perceived prestige. Other significant associations are Authenticity and Quality Concerns ($r = .789$), Productivity ($r = .701$), and Review Practices ($r = .738$), which add to the overall effect of AI.

Table 4. SLR model summaries

Model	IV	DV	Beta	Sig	R2
1	AI Integration/ Hybrid Workflow	Productivity	0.658	0.000	0.492
2		Authenticity & Quality Concerns	0.785	0.000	0.622
3		Review Practices	0.716	0.000	0.545
4		Role Emergence	0.827	0.000	0.702
5		Retention	0.825	0.000	0.692
6	Curator Role	Status	0.757	0.000	0.577

Table 4 shows the findings of six simple linear regression (SLR) models that have been employed to test the hypotheses of the study. All in all, the results prove to be strong and significant, with all models having a p-value of 0.000, which depicts strong statistical support. In the case of H1a, AI Integration is a significant predictor of Productivity ($\beta = 0.658$, $R^2 = 0.492$), indicating that there are significant productivity gains when AI is used more. H1b is also valid because AI Integration is highly correlated with Authenticity and Quality Concerns ($\beta = 0.785$, $R^2 = 0.622$), which suggests that it is associated with significant growth of authenticity-related conflicts when more AI is used.

In the case of H2a, the AI Integration is a significant predictor of Review Practices ($\beta = 0.716$, $R^2 = 0.545$), which suggests that hybrid workflows provide more orderly review processes. H2b is even better supported, where AI Integration is very much predictive of Role Emergence ($\beta = 0.827$, $R^2 = 0.702$), indicating that the emergence of new specialised jobs is caused by the adoption of AI.

H3a can be supported because AI Integration is a significant predictor of Retention/Exit Intention ($\beta = 0.825$, $R^2 = 0.692$), proving that the greater the use of AI, the higher the likelihood of disengagement among volunteers. Lastly, H3b, which is confirmed with the Curator Role, is a significant predictor of Status ($\beta = 0.757$, $R^2 = 0.577$), which validates the fact that curators of AI output are the ones who are given higher status by the community.

4.4 Hypothesis Summary

Hypothesis	Decision
H1a: Higher AI integration increases translation throughput.	Supported
H1b: Higher AI integration increases authenticity-related disputes.	Supported
H2a: More hybrid workflows lead to more formal review practices.	Supported
H2b: More hybrid workflows lead to the emergence of new community roles.	Supported
H3a: Higher AI integration increases volunteer exit intention.	Supported
H3b: Volunteers who curate AI output gain higher status.	Supported

5. Discussion

5.1 Increased Throughput Through Disputed Authenticity

The results are able to support the first sub-hypothesis, H1a, that as the level of integration with AI rises, the amount of translation throughput will increase. This is evident from the fact that according to the data, AI Integration Predicts Productivity with $\beta = 0.658$ and $R^2 = 0.492$ and the correlation of the two variables is high ($r = .701$). From a sociotechnical systems framework (Trist & Bamforth, 1951), one can conclude that the use of AI in volunteer translation does not simply involve adding another component to the work system but rather reconfigures how the work gets done, involving a change in pacing and task allocation for members as well as a new set of affordances offered by AI elements like automatic generation of drafts, correction of grammar, and utilising tools for quality assurance. Such AI elements seem to be used for automating the cognitive labor, making the overall volume of productivity higher due to less cognitive effort required on part of the volunteers. Hence, the results seem to suggest the presence of a technical subsystem that increases volunteer capacity and speeds up production processes. On the other hand, Communities of Practice framework (Lave & Wenger, 1991) sheds light on the reason why the higher throughput does not imply uniform member experience in the volunteering practice communities. Increased production via AI leads to legitimate peripheral participation dynamics changing for the fan groups involved in translations, as well as setting new criteria for participation. To that end, the empirical R^2 of ~ 0.49 , therefore, reflects both the technical efficiency of AI and the social reconfiguration that enables more pieces of work to be completed and released.

The findings also present observations about the concerns regarding quality and authenticity in AI integration in the fan-localisation of these cultural works by displaying a robust relationship between the two. Reflected through the aspect of quality concerns ($\beta = 0.785$, $R^2 = 0.622$; $r = .789$), the findings reveal that the same technological affordances that raise throughput create salient disputes over authenticity. From a sociotechnical perspective (Trist & Bamforth, 1951), this tension is predictable, as it indicates that introducing automated drafting and generative assistance alters the epistemic basis of quality control. This includes factors like ‘what counts as correct or good translation output’, because machine outputs compress individual judgment into algorithmic suggestions whose provenance and reasoning are opaque to many community members. To that end, this creates an opacity that destabilises the norms embedded in the social subsystems that previously derived from visible human craft and collective editing. Furthermore, the communities of practice theory (Lave & Wenger, 1991) explains the normative dimension of such AI-integrated authorship in fan community practices. This suggests that authenticity claims are not merely technical assessments but identity-laden evaluations which are negotiated through community repertoires.

Consequently, when a substantial portion of a text is machine-produced, veterans and invested members may experience a dissonance between prior standards of ‘handcrafted’ and ‘human-generated’ translation and emergent hybrid artefacts, producing the increased disputes observed. This kind of controversy can manifest itself through issues related to whether AI-assisted translations can count as valid fan translations, the extent to which there needs to be human involvement for the translation to be seen as valid, and whether AI-generated translations sufficiently retain cultural context, style, and quality. These controversies represent aspects of larger discussions surrounding questions of creative ownership and contributions in fan spaces. Furthermore, the relatively high R^2 (0.622) suggests that disputes are not marginal side-effects but central, systemic responses to AI’s integration. This relates to a form of reframing of quality that must be managed both technically through tooling and review, and socially through negotiated norms and storytelling about what counts as legitimate authorship. In practice, however, issues of authenticity might arise in relation to whether the output of the AI is viewed by community members as a legitimate form of fan translation, or whether the AI only acts as an aid to translation, thus necessitating further involvement from humans.

5.2 Emergence of Formal Review Practices and New Roles Through Hybrid Workflows

The findings using the Regression analysis evaluate H2a to verify whether more hybrid workflows lead to more formal review practices. Regression analysis indicates that AI integration predicts the Review Practices strongly ($\beta = 0.716$, $R^2 = 0.545$; $r = .738$), suggesting that hybrid workflows correlate with more formalised review processes. Accordingly, applying the Sociotechnical theory frames this as a joint adaptation of technology and organisational processes, which reveals the correlation between the automated output and the routine input processes. This is because when the automated

output becomes a regular input, the social system adjusts itself by establishing the process of codification for reviewing and checking so that the output from the machine may be aligned with the social norms of the community. This implies that the review system can be considered an intentional adjustment strategy whereby the social community integrates technical output into a review process. This involves peer reviews and guidelines through which errors can be addressed and human interpretation regained. Simultaneously, from the communities of practice perspective, formalisation can be understood as a boundary-work strategy that preserves core values of the practice while permitting technological productivity gains. Furthermore, the institutionalised review practices become a discursive resource that senior members and gatekeepers use to teach newcomers, maintain identity boundaries, and articulate what qualifies as competent participation in a hybrid environment. To that end, the moderate-to-high explained variance ($R^2 \approx 0.55$) implies that formal review is a predictable social adaptation to AI rather than an idiosyncratic policy choice.

The H2b is verified through the data of the regression analysis, which shows an especially strong predictive relationship between AI Integration and Role Emergence ($\beta = 0.827$, $R^2 = 0.702$; $r = .838$). This observation indicates that new specialised roles become strengthened as AI becomes embedded in workflows. Application of the sociotechnical systems theory anticipates such role differentiation by identifying that AI technology functions in collaboration with human labour, which fragments the role of each component based on expertise. This means that as technological artefacts assume parts of a task, the human division of labour fragments into complementary specialisations, such as prompt engineers, AI curators, post-editors, and QA specialists. These roles are not neutral technical allocations, but rather are positions within the social subsystem through which the expectations, tacit knowledge, and jurisdictional claims are carried and operated. Accordingly, applying the communities of practice theory helps to elaborate how these nascent roles become the loci of status and learning in the human-AI framework. This identifies that the newcomers may aspire to reach the curator roles that provide them a route to fuller participation, while the incumbents develop repertoires of practice that define expertise around curation and interpretive judgment. To that end, the significantly high R^2 (~ 0.70) suggests that the emergence of roles is a dominant, systemic response to AI integration, which presents a reconfiguration of both the task architecture and the apprenticeship pathways through which legitimate participation and mastery are achieved.

5.3 Volunteer Exit Intentions Versus Increased Recognition Through Higher AI Output

The findings of the research indicate that AI-integration in the creative work process of fan-localisation and translation of the cultural works become a prominent predictor for the identification of exit intention of the community participants (H3a). It presents a significant value of this predictability ($\beta = 0.825$, $R^2 = 0.692$; $r = .832$), which suggests that higher AI use correlates with increased intentions to disengage. One reason for this might be the loss of creative interest and rigour that might emerge from a thorough human labour, which is an understanding beyond the scope of this research. This suggests that some of the volunteers feel that greater use of AI decreases the chances of being able to display creativity in the language, or hone their skills in translation. To that end, the Sociotechnical systems analysis highlights several mechanisms which are consistent with this pattern of exit intention among the participating fan community members. Firstly, technological change can generate skill-biased displacement effects within voluntary labour systems, as volunteers whose identities and competencies are tied to manual, craft-based translations may find their contributions devalued, leading to the development of frustration and withdrawal among them. Secondly, the social processes of norm renegotiation, which are documented in the interpretation of H1b and H2a, can create crises of legitimacy for the members who resist new workflows. This is because community sanctioning or devaluation of certain practices can push these members to peripheral or exit positions. Upon viewing these observations through the communities of practice framework, the factor of retention is an outcome of identity alignment and legitimate peripheral participation among the members. This is because when AI alters the understanding of the factors that are actually viewed as legitimate contributions, members who cannot or are reluctant to adapt to these approaches of performance experience a conflict between their practice identity and evolving community membership criteria. Accordingly, such a disjunction between the ideological perception of practices and the demand criteria for participation amplifies the exit intention among these members. To that end, the high explained variance, in this scenario, suggests that the social impact of AI on the motivation and belonging of these participants is substantive rather than incidental.

Given the above observations, curatorship determines the status ($\beta = 0.757$, $R^2 = 0.577$). The above finding indicates the idea that members who use AI curation technologies get more prestige as they work on collective projects within the community framework of the fan community. This observation demonstrates the idea that technical expertise in relation to new valuable artifacts leads to social capital. From a socio-technical perspective, curators represent the point of intersection between the human component and machines, and as such, they have technical skills in using machines as well as evaluative skills concerning culture. Simultaneously, from the communities of practice viewpoint, the roles of the curators become a recognised trajectory for the legitimisation and leadership. This form of leadership roles includes skilful curators who function to teach, mentor, and authoritatively judge the outputs of the AI-curated work by the new joiners, and thereby, accumulate the symbolic capital that translates into status. To that end, the R^2 in the findings of this research

indicates a strong association, which is, however, not an all-explaining indicator. This implies that while curation competence is a key pathway to status, other social resources, such as seniority, reputation, and genre expertise of the curators, are likely to interact with curatorial skill to determine ultimate prestige. Accordingly, this indicates the correlation with the voluntary participation of the members abiding by the criteria of AI outputs, which ensures their continued participation and higher gains, as opposed to those who reflect the exit intention.

The analysis conducted through the integrated framework of the sociotechnical systems theory and the communities of practice theory presented a synthesis of the quantitative patterns of AI integration in the fan-localisation of creative work. The frameworks identified the extensive role of AI that acts as a technical affordance among these fan community participants in the creative translation works of the cultural texts, which increases the throughput. It acts as a social catalyst in recognising the review infrastructure that establishes new roles of specialisation, which adds to the redistribution of the status and precipitates the retention dynamics among the participants. Accordingly, the statistical magnitudes that are reported in the research findings through the strong betas and the R2 values across the various models become suggestive of the mutually reinforcing systemic processes that negate any form of isolation phenomena in such creative practices.

Conclusions from this research can be translated into actionable steps in several ways for the benefit of different stakeholders. For the moderators of fan-communities, conclusions made here point to the importance of clarifying what constitutes appropriate uses of AI and setting rules concerning reviews and attribution of authors in order to minimize the number of authenticity-related controversies within the community. Platform designers should focus on creating collaborative infrastructure that would allow human intervention in AI-translated texts, including assigning different roles based on expertise and establishing effective quality assurance processes. Lastly, AI translation tool builders should design tools capable of supporting post-editing and adapting translated content according to different cultures, so that communities could maintain their creative identity yet enjoy higher productivity.

6. Conclusion

This research aims to document the role of AI tools in reconfiguring workflows, reassigning tasks, and influencing the meanings of authorship, skill, and value in a fan localisation group. Accordingly, this paper addresses the research question: How does the introduction of AI assistance reshape labour division, quality control, and identity narratives within a fan translation community? In doing so, this research has established a set of hypotheses, which are conveniently categorised into two sub-hypotheses for the multiple regression analysis, as follows:

H1: AI increases throughput but creates disputes over authenticity

- H1a: Higher AI integration increases translation throughput.
- H1b: Higher AI integration increases authenticity-related disputes.

H2: Hybrid workflows lead to formalised review practices and new role emergence

- H2a: More hybrid workflows lead to more formal review practices.
- H2b: More hybrid workflows lead to the emergence of new community roles.

H3: Some volunteers exit while others gain status by curating AI output.

- H3a: Higher AI integration increases volunteer exit intention.
- H3b: Volunteers who curate AI output gain higher status.

Accordingly, the paper identified the variables with degree/type of AI integration as the independent, productivity, perceived authenticity, and retention rates as the dependent, and project genre, community size, and volunteer experience as the control variables. Accordingly, the research conducted a quantitative survey using multiple regression models for the verification of the role of AI in the production work, the changing and emerging roles, and the exit intention of the voluntary participants. The research analysed the responses from 200 participants, and the findings were analysed using the integrated framework of the sociotechnical systems model and the community of practice framework, which analysed the increase in productivity after the integration of AI in the translations and creative workflows in the domain of fan-localisation. Accordingly, AI is identified as a collaborative tool functioning under human verification that guides the process and changes throughput in AI-generated fan content. Accordingly, the disputes of authenticity in the AI-integrated model are evaluated through their emergence as a mechanism for the community to negotiate the role distributions that assess quality concerns and mask the anxieties of performance and belongings among the community volunteers. In general, what the paper proves is that AI needs to be seen not just as a technology of productivity improvement, but as an agent of change in fan-translation communities. In this way, the study provides some insight into the ongoing discussions about AI-human collaboration, proving that technology creates both new prospects for creativity and new conflicts related to authenticity and status.

6.1 Limitations

The current research is limited in its approach to collecting data based on self-reported data, which may be influenced by biases and recall flaws by the participants, subjective interpretation of the AI constructions and norms, and the social desirability of performance and creative identity among the participants. Furthermore, the cross-sectional analysis creates a restriction on the verification of the causal relationship between the productivity, status, role emergence, and exit intention with the AI integration process. Moreover, due to the sole use of structured surveys, there was a lack of potential for capturing the more detailed qualitative aspects associated with authenticity conflicts, identity struggles, and motives for leaving volunteering. Future research which includes interviewing techniques could yield more insight into these processes.

6.2 Scope for Future Research

Taking the current research as a foundational approach, future studies can consider longitudinal studies, which can examine the temporal shifts in workflow stability, identity formation, and retention of participants in AI tools. To that end, these studies may also perform qualitative interview-based research to conduct an in-depth analysis of the opinions of those members who choose to exit from the process due to the over-integration of AI and the consequences it may have on the identity process of these people.

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