Saral AI: Transforming Academic Papers into Multiple Research Communication Outputs

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ABSTRACT

The increasing volume of scholarly publications has made research dissemination a significant challenge, as most academic work remains inaccessible to non-specialist audiences due to technical language and complex presentation. SARAL AI (Simplified and Automated Research Amplification and Learning) aims to convert research papers into multiple audience-friendly formats, including plain-language summaries, short videos, podcasts, presentations, posters, social media content, and multilingual outputs in 21 Indian languages. This paper examines the concept, working mechanism, and applications of SARAL AI in research communication, particularly within management institutes. The paper also explores the evolving role of academic libraries and Knowledge Resource Centres (KRCs) in supporting AI-enabled research communication through AI literacy, ethical guidance, quality assurance, and research curation. The study concludes that SARAL AI should be viewed as a complementary research communication tool that enhances scholarly outreach while preserving academic integrity through expert review and responsible AI practices.

Keywords: *SARAL AI, Research Communication, Artificial Intelligence, Academic Libraries, Knowledge Dissemination, Management Education, Multilingual Communication, Research Visibility.*

1. INTRODUCTION

The rapid growth of academic research has resulted in an unprecedented increase in scholarly publications. Although these publications contribute significantly to knowledge creation, much of the research remains confined to academic journals because of technical language, complex methodologies, and limited accessibility for non-specialist audiences.

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Consequently, valuable research findings often fail to reach students, industry professionals, policymakers, and the general public.

Artificial Intelligence (AI) has emerged as a transformative technology capable of improving research communication by converting complex academic content into simplified and engaging formats. SARAL AI (Simplified and Automated Research Amplification and Learning) represents one such initiative designed to democratize access to research by transforming scholarly publications into multiple communication formats suitable for diverse audiences.

Rather than limiting research dissemination to journal publications, SARAL AI enables researchers to generate plain-language summaries, presentations, posters, podcasts, videos, social media posts, and multilingual educational content. By simplifying complex research while preserving its essential findings, the platform supports wider knowledge dissemination and increases the societal impact of academic research.

This paper explores the concept, working mechanism, applications, challenges, and future potential of SARAL AI, with particular emphasis on its relevance for management institutes and academic libraries.

2. BACKGROUND OF THE STUDY

The growing use of artificial intelligence (AI) in scholarly publishing and science communication has created new possibilities for transforming complex academic knowledge into forms accessible to diverse audiences. Generative AI can support summarisation, translation, content generation, editing, and audience adaptation, although quality assurance remains essential (HighWire Press, 2022; Kessler et al., 2025b).

Makris and Abou-Ismail (2024) argue that AI can improve accessibility and support complex scientific communication tasks, while raising concerns regarding accuracy, transparency, reliability, and responsible use. Similarly, Alvarez et al. (2024) identify translation and summarisation as important applications of generative AI, but caution against misinformation and inaccurate outputs. Könneker (2024) further highlights AI's growing role in research interpretation, visualisation, text production, and multimedia communication, while emphasising human judgement. SciRio (2025) highlights AI's potential for summarisation, multilingual communication, accessibility, and audience engagement.

Kessler et al. (2025a), in a review of 35 studies, identify four major areas: communication about AI, communication with AI, AI's impact on science-communication ecosystems, and AI's influence on science and research methodologies. Their editorial also identifies opportunities in content generation, translation, summarisation, and audience adaptation, alongside concerns about bias, misinformation, transparency, and ethical issues (Kessler et al., 2025b).

Practitioner perspectives reinforce the importance of human oversight. Kitainda (2026) stresses the importance of retaining human voice and expertise, while Boronowsky (2025) emphasises human judgement in AI-assisted science communication. Yuan and Chu (2026) further connect AI with questions of agency, authorship, credibility, and trust.

Collectively, the literature establishes AI's potential to transform scholarly information into diverse communication formats while highlighting concerns regarding accuracy, context, credibility, and human oversight. However, the integrated transformation of a single academic paper into multiple audience-specific research communication outputs remains comparatively underexplored. 'Saral AI' transforming academic papers into multiple research communication outputs addresses this research opportunity by investigating AI as a transformation layer between academic research and diverse communication formats while retaining human oversight.

The literature demonstrates strong potential for AI-assisted summarization, translation, content generation, audience adaptation, and multimedia science communication. However, these applications are often examined separately rather than as components of an integrated research-to-communication workflow. Studies also emphasize the importance of maintaining accuracy, context, credibility, and human oversight. Kessler et al.'s (Year) systematic review identifies AI and science communication as an emerging field, highlighting the need to investigate AI's broader role within science-communication ecosystems. This study addresses this gap by examining Saral AI as a transformation layer that converts academic research into diverse audience-specific communication formats while preserving key findings, context, accuracy, and credibility through human oversight.

3. WHAT IS SARAL AI?

SARAL AI (Simplified and Automated Research Amplification and Learning) is an AI-driven initiative of the Anusandhan National Research Foundation (ANRF), Government of India (https://anrfonline.in/ANRF/HomePage), developed in collaboration with 'Sarvam' and 'Google' to make scholarly research more accessible and understandable. The word Saral means simple or easy in Hindi, reflecting the platform's objective of simplifying complex academic knowledge for wider public engagement. It is offered at no cost for anyone to use by creating an account or using an open ID like Google. The application can be accessed from its website at https://saral.democratiseresearch.in

The platform is designed to transform lengthy research papers and patents into multiple communication outputs while maintaining the integrity of the original research. One of its distinguishing features is multilingual support, enabling research dissemination in 21 Indian languages, thereby expanding accessibility across diverse linguistic communities.

A typical research paper or patent of multiple pages in PDF format can be converted into the following formats for easy communication of research in the desired language.

- Social media posts
- Educational videos
- Podcasts
- Posters/infographics
- Presentation slides

It also offers Chrome browser extension, using which one can create all the above functionalities plus business brief (Summary) of papers hosted on arxiv (https://arxiv.org) preprint repository choosing the desired output language.

4. WORKING MECHANISM OF SARAL AI

Research papers often contain technical jargons, statistical analyses, and discipline-specific language that limit their reach to wider audience, especially the non-discipline audience including the public. SARAL AI addresses this challenge by functioning as an intelligent research

communication assistant by simplifying the complexity of the paper to a simple language through multiple formats.

Its workflow can be summarized as follows:

Research Paper/Patent → AI Analysis → Information Extraction → Language Simplification → Multi-format Content Generation

The process consists of five major stages:

4.1 Research Paper or Patent Submission

Researchers upload a research paper or patent in PDF format.

4.2 AI-Based Content Analysis

The AI system identifies critical components of the research, including:

- Research objectives
- Literature context
- Research methodology
- Major findings
- Conclusions
- Practical implications

4.3 Language Simplification

Technical academic language is translated into clear, reader-friendly language suitable for students, professionals, policymakers, and the public without altering the original meaning.

4.4 Multi-format Content Generation

SARAL AI generating multiple communication outputs as outlined in subheading 3.

4.5 Multilingual Translation

The output of generated content can be translated into multiple Indian languages, significantly expanding research outreach and promoting inclusive knowledge dissemination.

5. SARAL AI IN RESEARCH COMMUNICATION

Research communication extends beyond publication; it involves presenting scholarly findings in forms that are understandable and useful for society. SARAL AI strengthens this process by transforming technical research into engaging educational content through videos, podcasts, summaries etc. These outputs enable researchers to communicate their work effectively to students, practitioners, policymakers, industry leaders, and the wider public.

The adoption of SARAL AI offers several advantages:

- Increased research visibility
- Wider dissemination beyond academia
- Improved public understanding
- Enhanced societal impact
- Greater policy and industry engagement thus leading to impact of research
- Inclusive multilingual communication

For academic conferences, SARAL AI it can create concise research communication packages consisting of research objectives, methodology, key findings, and practical implications that can be shared through conference websites and institutional platforms.

6. APPLICATION OF SARAL AI IN MANAGEMENT INSTITUTES

Management institutes generate extensive scholarly outputs through faculty research, student projects, case studies, dissertations, and conference publications. SARAL AI provides an effective mechanism for communicating these outputs to broader audiences. It can be applied for simplifying the following academic activities to the wider audience through simplified videos, presentations, social media content, etc.

6.1 Faculty Research Communication

Faculty publications can be transformed into simplified videos, presentations, social media content, etc. thus improving research visibility.

6.2 Conference Research Promotion

Accepted conference papers can be converted into one-minute research videos, presentation slides, social media posts, etc.

6.3 Student Research Communication

MBA projects, Summer Internship Projects (SIPs), capstone reports, dissertations, and business plans can be converted into concise presentations highlighting objectives, methodology, findings, and recommendations.

6.4 Industry–Academia Collaboration

SARAL AI simplifies academic findings into business-friendly language, enabling HR managers, entrepreneurs, consultants, and policymakers to apply research insights effectively.

6.5 Institutional Branding

Management institutes can showcase the following through AI-generated communication materials.

- Faculty publications
- Student achievements
- Conference proceedings
- Research success stories
- Institutional innovations

6.6 Multilingual Outreach

Research communication in regional languages expands institutional outreach to local industries, entrepreneurs, community organizations, and regional stakeholders.

7. CHALLENGES IN USING SARAL AI

Despite its significant advantages, the adoption of SARAL AI presents several challenges:

- Accuracy and reliability of AI-generated outputs
- Oversimplification of complex research
- Loss of methodological context
- Data privacy and confidentiality
- Copyright and intellectual property
- Algorithmic bias
- Requirement for human review
- Limited AI literacy among researchers

- Translation inaccuracies
- Technical infrastructure limitations
- Ethical and transparency concerns
- Preservation of the researcher's original voice
- Quality assurance and standardization
- Overdependence on AI technologies

Addressing these challenges requires institutional policies, researcher training, and continuous human supervision.

8. ROLE OF LIBRARIES AND KNOWLEDGE RESOURCE CENTERS

Academic libraries are evolving from repositories of information into active partners in research communication. Knowledge Resource Centers (KRCs) can significantly contribute to the successful implementation of SARAL AI.

Their role includes:

- Supporting research dissemination
- Promoting institutional research visibility
- Conducting AI literacy programmes
- Enhancing users' information and digital literacy skills
- Ensuring ethical AI practices
- Managing research data
- Curating institutional scholarly outputs
- Facilitating industry–academia knowledge transfer
- Coordinating quality review and content validation

A recommended workflow is:

Research Submission → Library Metadata Review → SARAL AI Processing → Subject Expert Validation → Institutional Publication Promotion

This collaborative approach ensures that AI-generated communication remains accurate, ethical, and academically credible.

9. CONCLUSION

SARAL AI represents a significant advancement in AI-enabled research communication by transforming complex academic publications into accessible, engaging, and multilingual communication outputs. Its ability to generate summaries, presentations, videos, podcasts, policy briefs, and social media content enhances research visibility and broadens societal engagement.

For management institutes, SARAL AI offers opportunities to amplify faculty research, student projects, conference proceedings, and institutional achievements while strengthening collaboration among academia, industry, government, and communities.

However, AI-generated content must be used responsibly. Human oversight remains essential to verify accuracy, preserve research integrity, protect confidential information, and ensure compliance with ethical and copyright standards. Academic libraries and Knowledge Resource Centres are well positioned to facilitate responsible AI adoption through training, policy development, quality assurance, and research curation.

Ultimately, SARAL AI and similar AI technologies should not be viewed as a replacement for researchers or librarians, but as an intelligent research communication partner. By combining artificial intelligence with human expertise, institutions can make scholarly knowledge more visible, understandable, inclusive, and socially relevant.

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