

# Quick Tips for Using GenAI to Assist with Writing NSF ATE Proposals

## Read the latest NSF News Regarding the Use of Generative AI with Grant Proposals

Read the [December 2023 NSF notice](#) to the research community

- NSF reviewers are prohibited from uploading any content from proposals, review information and related records to **non-approved** generative AI tools.
- Proposers are encouraged to indicate in the project description the extent to which, if any, generative AI technology was used and how it was used to develop their proposal.
- Sample wording that can be tailored and should be used near the beginning of the project description:  
*The PIs used the GenAI-powered <list of GenAI tool(s)> to research existing ideas. To maintain proposal integrity and authenticity, unique ideas were not generated by AI technology. In all cases, the PIs take full responsibility for the intellectual merit, innovation, and content of this proposal.*

Familiarize yourself with the latest Proposal and Award Policies and Procedures Guide regarding the use of GenAI.

- The December 2024 [Draft of PAPPG 26-1](#) contains the following wording and subject to change when finalized:  
*RESEARCH MISCONDUCT means fabrication, falsification, or plagiarism (whether committed by an individual directly or through the use or assistance of other persons, entities, or tools, **including artificial intelligence (AI)-based tools**) in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF. The Foundation's Research Misconduct Regulation is found at 45 CFR part 689.*

## Do Not Use Content Directly from GenAI for any Section of Your Grant Proposal

Each Large Language Model (LLM) used in GenAI is pre-trained using vast amounts of general data (e.g., web pages, books, chat logs) and specialized data (e.g., scientific research, code).

Learn how content directly from GenAI can

- introduce **plagiarism**
- introduce **biases**
- impact your academic integrity, **intellectual merit** and consequently your fundability

## Learn How Your Conversations Are Used by GenAI for LLM Training

Understand how your GenAI tools use conversations in future training. Several tools allow users to opt in or opt out of using their input and responses for future training. Consider the following:

- Will your conversations and data be used in future GenAI training?
- Have the responses and ideas you receive come from others?

## Fact Check GenAI Responses

Check GenAI responses for hallucinations (false or misleading data). You can

- Use a non-AI, traditional search engine to verify references and facts
- Carefully review the responses for reasonableness and context
- Assess if the responses are a good fit for your intellectual merit and intended work

## Use Grammar Improvement Tools Rather than GenAI to Improve Writing

Several grammar improvement tools, such as Grammarly, are designed to refine writing and improve clarity.

- Protect the integrity of your grant proposal by using a specialized grammar improvement tool rather than exposing the full content of your proposal to a GenAI platform.

# Samples of Using GenAI to Assist with Writing NSF ATE Proposals

## Intellectual Merit

Intellectual merit is the responsibility of the grant PIs. To maintain proposal integrity and authenticity,

**GenAI is not recommended for use with intellectual merit.**

It may be beneficial to search on Research.gov and review past NSF grants related to the new grant idea to ensure unique ideas.

## Motivating Rationale

**Supporting Data** - GenAI may help with supporting data for grant topics, especially at the federal and state levels. Local colleges and state agencies may provide additional data.

**Job Openings** - GenAI may help identify job openings to support grant proposals. It is also beneficial to use online data from sites such as the U.S. Bureau of Labor Statistics (or a similar site for your state), Lightcast, etc.

**Needs Assessment** - GenAI can create a quick needs assessment, including supporting data.

## Broader Impact/Societal Impact

GenAI may help identify existing or potential community college partnerships for a given discipline, with examples.

Gen AI may provide examples of societal impact for similar grants in the past. Seeing other examples may be beneficial.

## References

GenAI can be used to locate scholarly articles on a given topic. Always check references from GenAI for legitimacy.

## Goals, Objectives, Activities, and Deliverables

GenAI can effectively identify goals, objectives, activities, and deliverables. Refining prompts may improve results.

## Budget and Budget Justification

GenAI is effective in estimating costs for travel, salaries, and other related costs, including justifications. Be specific and refine prompts as needed.

## Dissemination Plan

GenAI can be used to generate new ideas for disseminating information which can be tailored for a specific region. It is also beneficial to see how others have creatively disseminated information.

## Sustainability

This section of the grant proposal is unique for each grant proposal and college. However, you may opt to use AI to solicit ideas that may have been overlooked.

## Evaluation Plan

It is recommended that an external evaluator write the evaluation plan of an NSF proposal. If that is not possible, GenAI can be used to create an evaluation plan, including a logic model.

## Project Timeline

GenAI can provide an overall timeline for a list of activities. Always review the results for unnecessary or unrelated steps. Refined prompts may be needed.

## Facilities, Equipment, and Other Resources

This section of the grant proposal is unique for each grant proposal and college. However, you may opt to use AI to solicit ideas that may have been overlooked.