



How to Create a Gen AI-Enhanced Proposal Library for Winning Government Contracts

Olessia Smotrova and
Christian Ferreira



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Welcome and Introductions

- **Speakers:** Christian Ferreira (Procurement Sciences) and Olessia Smotrova (OST Global Solutions)
- Your competition is using Gen AI to write proposals - what are your actions?



**Olessia Smotrova, CF APMP
Fellow**

Chief Strategy Officer
OST Global Solutions



Christian Ferreira

Founder/CEO
Procurement Sciences AI



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Problem

- Many organizations are “data hoarders” – sitting on mountains of past proposal content that never gets revisited
- Businesses at levels 1 through 3, “Ad Hoc” through “Defined,” keep this data across multiple employee’s computers and cloud spaces and haven’t consolidated it into one organized Library

BUSINESS DEVELOPMENT AND AI INTEGRATION MATURITY LEVELS

6	DIFFERENTIATED	COMPETITIVE DIFFERENTIATION DRIVES LIFETIME CLIENT BASE. AI AUTOMATION RESULTS IN MAXIMUM VOLUME AND QUALITY.
5	OPTIMIZED	STANDARD BD PROCESSES ARE IMPROVED USING DATA DRIVEN BY FIRM, GROUP, AND INDIVIDUAL GOALS. AI AUTOMATION REACHED.
4	QUANTITATIVELY MANAGED	STANDARD BD PROCESS IMPLEMENTED THROUGHOUT THE FIRM, MEASURING WHAT MATTERS. AI EMBEDDED IN STRATEGY.
3	DEFINED	STANDARDIZED BD PROCESS IN POCKETS WITHOUT ORGANIZATIONWIDE PROCESS IMPROVEMENTS. AI BECOMES OPERATIONAL.
2	REACTIVE	CHAOTIC AND TACTICAL, RESPONDING BASED ON INDIVIDUAL PERFORMANCE. EXPERIMENTATION WITH MAINSTREAM AI.
1	AD HOC	UNORGANIZED. AUTOMATICALLY AT THIS MATURITY LEVEL. INTERESTED IN AI.



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Traditional Boilerplate Reuse Process Is Fraught With Issues

1

TROUBLES WITH LOCATING THE RIGHT DATA



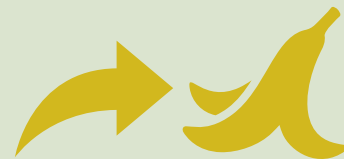
2

DROWNING IN IRRELEVANT INFORMATION WHILE DIGGING THROUGH MOUNTAINS OF DATA



3

IMPORTING STALE MATERIALS TO THE NEW PROPOSAL WHILE FAILING TO FORMULATE A UNIQUE NEW SOLUTION



4

FAILING TO WEED OUT LEFTOVER ARTIFACTS THAT MAY BE AS EGREGIOUS AS ANOTHER CUSTOMER'S NAME



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AI Is the Solution

- Working with boilerplate is like shoveling mounds of trash into the proposal trying to dig through and find gems in it
- *Surgical approach* of finding relevant concepts and statements is a lengthy process – so much that many prefer to write from scratch rather than reuse and recycle



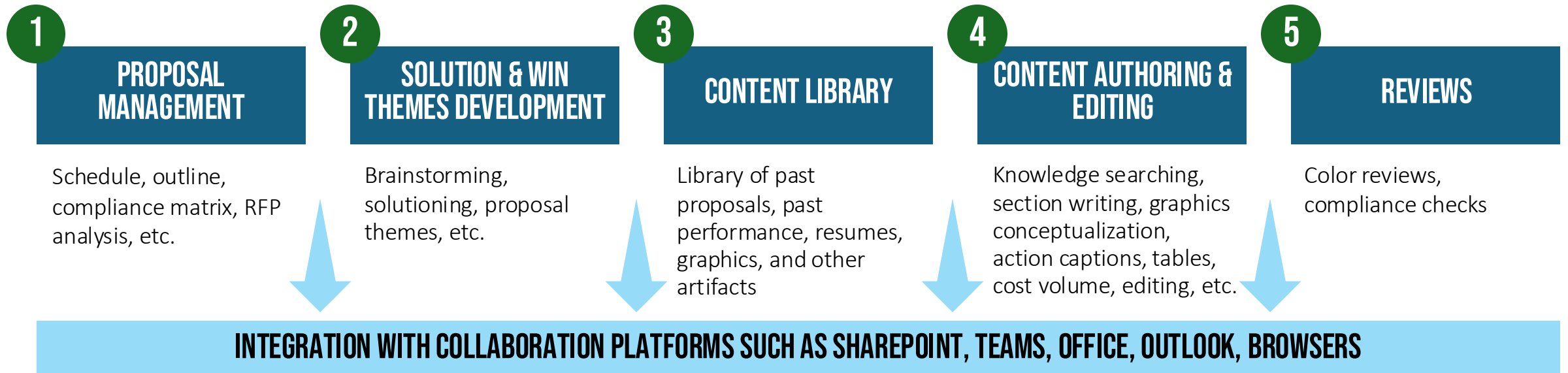
AI IS LIKE A HIGH-SPEED ARCHEOLOGIST DIGGING THROUGH YEARS OF PAST PROPOSALS UNEARTHING TREASURES AND TRANSFORMING THEM INTO HIGHLY RELEVANT CONTENT MUCH FASTER THAN A HUMAN COULD



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Five Components of Successful AI Integration Into the Proposal Development Process



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Gen AI 101: Introduction to Generative AI

Generative AI: Artificial Intelligence that can create new content, including audio, code, images, text, simulations, and videos.

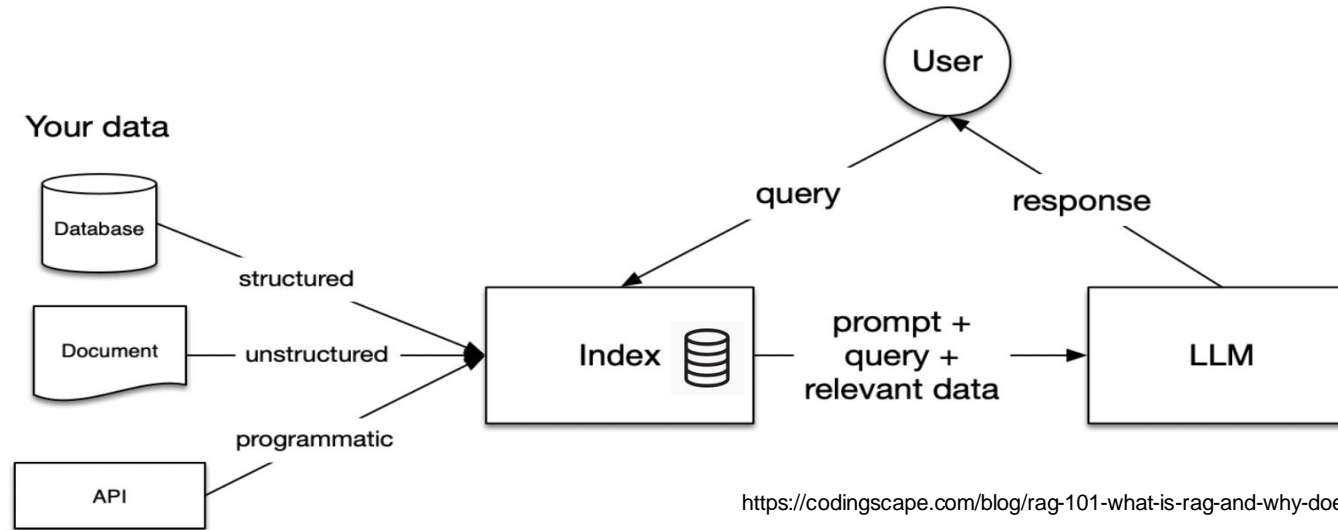
- **Large Language Model (LLM):** The core component of AI systems that power Generative AI capabilities. These models are trained on large datasets and come in various types, such as OpenAI's GPT Series, Anthropic's Claude Series, and Meta/Facebook's LLAMA Series.
- **Natural Language Processing (NLP):** A method for interacting with LLMs using natural language text input and output, mimicking human communication.
- **Semantic Searching:** Finding information by understanding the meaning behind words, not just the words themselves. It is the next evolution of the Control+F word search.
- **Retrieval Augmented Generation (RAG):** An algorithm that allows company data to be retrieved and used without the risk and high cost of training a custom LLM.
- **Hallucination:** When an AI responds with inaccurate information that sounds convincing to the user.
- **AI Prompting:** A natural language command given to the AI.
- **Prompt Engineering:** The advanced formatting of prompts to achieve stronger responses and reasoning.



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Gen AI 101: Enhancing Proposals w/ Company-Aware AI



Benefits of Retrieval Augmented Generation (RAG) for Proposals and Information Retrieval:

Accuracy: Ability to cite the sources of information.

Affordability: RAG doesn't require large expenditures to train custom models.

Security: Data is held in a private vector database and is not available for the LLM to use for training, ensuring your information remains confidential and secure. *Check w/ AI Software Providers*

Data Control: You choose what data to use, whether it's a set of specific files or all company files.

Ease of Management: Simple process for updating and managing the content the AI can and cannot use.

Speed to Value: Quick implementation with virtually instant results.

Flexibility: Leverage continuous breakthroughs in foundational models without being locked into a single outdated model.

Gen AI 101: Best Practices for Using AI in Proposals

Generative AI: A predictive algorithm that tries to generate the best answer based on the provided knowledge or training dataset.

Deterministic Algorithms: Use logic to build answers, offering less creativity but greater accuracy.

Right vs. Wrong Times to Use Generative AI:

Right:

- ✓ When a human is involved to review content.
- ✓ When you need creative and unique content generation.
- ✓ When aiming to add efficiency to the first drafts of various deliverables.

Wrong:

- For cost volume calculations without heavy review.
- For mission-critical answers where a human is not reviewing.
- For using it as an "easy button" to do your work.

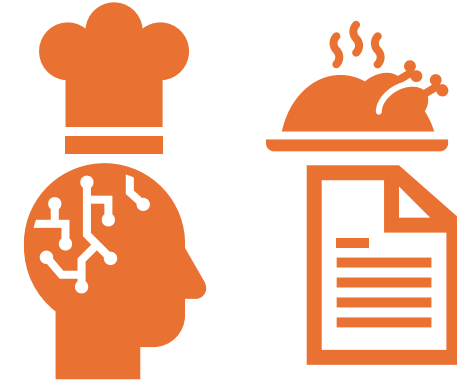


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How an AI-Augmented Proposal Library Will Help You Leverage Previously Written Proposals

- AI helps transform static, passive content into an active, strategic asset with your existing knowledge library
- AI is not just finding and copy-pasting old content
- It is transforming high-value strategies, narratives, and win themes that worked before into the currently relevant solutions



AI IS LIKE A MASTER CHEF REMIXING INGREDIENTS FROM 20 PREVIOUS RECIPES TO CREATE A DISH THAT'S BETTER THAN ANY ONE INDIVIDUAL RECIPE

...AND SIMULTANEOUSLY TAILORING IT TO THIS ONE CUSTOMER'S PICKY EATING PREFERENCES AND FOOD SENSITIVITIES TO CREATE SOMETHING COMPLETELY UNIQUE

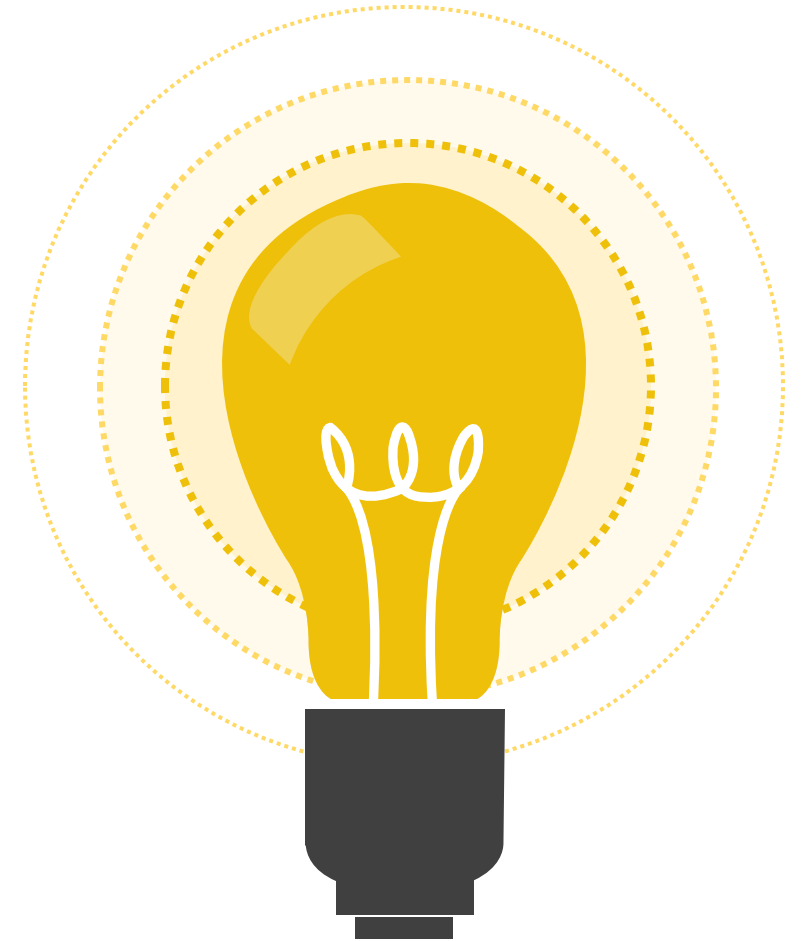


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Easiest AI Tasks

- The easiest proposal tasks AI can perform and save time is to find the right past performance examples, references, graphics, and resumes
- An AI-augmented proposal library also simplifies the hardest tasks such as win themes development, section content brainstorming, and text and graphics generation



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History

[+ New AI Session](#)

Search...

Today

- File Summary Request
- Past Performance Highl...

Previous Week

- Opportunity Analysis
- Proposal Opportunity ...
- File Summary Request
- Document Evaluation ...
- Federal Market Compe...
- Proposal Preparation
- Fujitsu Capabilities Ove...
- Capabilities Overview
- Fujitsu BMS SWOT Ana...
- File Summary Request
- USDA Bridge Opportu...
- French Translation Req...
- AI Proposal Team Visua...
- FedRAMP Inquiry Resp...

Older

- Proposal Compliance ...

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PSci Assistant ^ No Files Attached

Ask, Write, or Search for anything. ↑

Knowledge OFF Prompts Settings

Always verify mission critical answers and information, even if citations are provided.



Creating Your Content Library for AI Purposes

- Upon proposal completion, archive:
 - Source and PDF proposal files
 - RFP and amendments
 - Delivery receipt
 - Lessons learned results, win/loss debriefs, and info on competitors that won
- Delete redundant or unnecessary documents to save space and make relevant information easier to retrieve
- To protect the integrity of your files, implement a Security Plan defining access to the documents and levels of authority to modify, move, or delete the documents



SET UP YOUR DIRECTORY WITH A CLEAR NAVIGATION AND FILE NAMES SUCH AS YYYY -> AGENCY -> PROPOSAL NAME_VOLUME_FINAL_DATE

KEEP PINK, RED, AND GOLD TEAM VERSIONS ALONG WITH THE FINAL

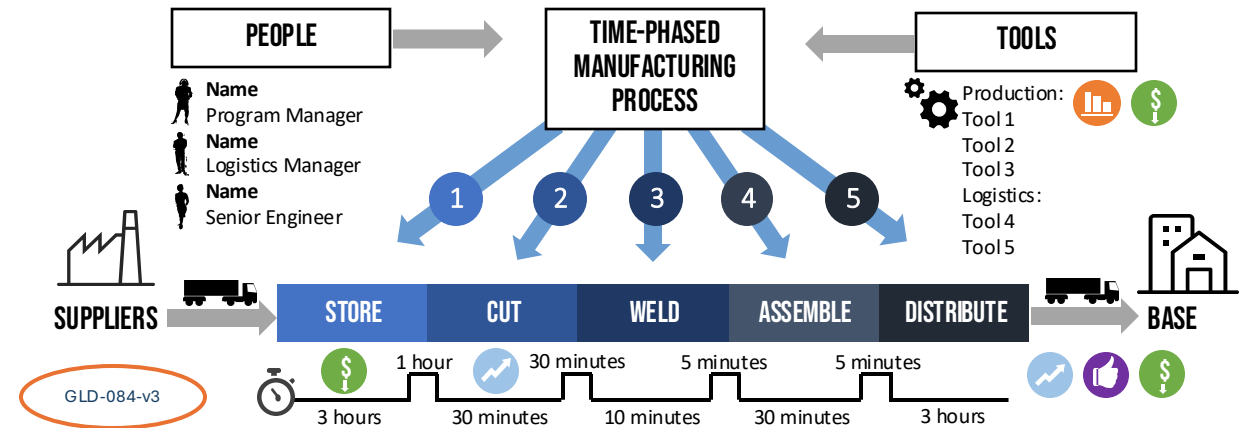


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Special Libraries

- Graphics library with source files
- Past performance library (yours and teammates') that includes statements of work and scope modifications
 - Using AI to restructure information
 - Giving it past proposals to extract past performance
- Resumes library
- Prompt library



TIP FOR GRAPHICS LIBRARY: USE UNIQUE PROPOSAL NAME ABBREVIATION, GRAPHIC NUMBER, AND VERSION NUMBER IN THE FILE NAME AND ON THE FACE OF THE GRAPHIC VISIBLE IN THE PROPOSAL FOR EASIER SEARCHES.

Library Collateral for AI Use

■ Example Sections for Prompts

- For structured document authoring, AI prompting is best done using cut-and-pasted examples into the prompt vs. attaching the document or automatic library retrieval
- Executive Summary
- Management Section
- Management Section Checklist
- Technical Section
- Technical Section Checklist
- Cost Volume Narrative with:
 - Cost baselines to support technical volume templates
 - Cost models and Basis of Estimate (BOE)s



■ Model Plans

- IMP/IMS
- Risk Plan

- Quality Control Plan and QASP
- Transition Plan
- Recruitment and Retention Plan
- Procurement Plan
- Safety
- Travel
- Staffing Plan
- Mobilization Plan
- Subcontractor Management Plan
- Systems Engineering Management Plan
- Integrated Logistics System Plan
- Training Plan
- IT Plan
- Continuity of Operations/Contingency Plan
- Security Plan
- Sustainability Plan



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More Collateral



■ Proposal Management Aids

- Proposal manager's checklists
- Outline
- Compliance matrix
- Kickoff slides
- Proposal schedule for typical durations
- Contact list template with proposal team's information
- List of proposal resources (internal, consultants, teammates) with contact information
- Abbreviated and detailed style guides for writers and editors
- Collateral for running color reviews (kickoff and debrief decks for pink and red teams, reviewer forms, process)
- Structured lessons learned process that passes on the lessons learned to support new proposals

■ Master Proposal Documents

- Cover and title sheet
- Proposal template with custom toolbars
- Nominal WBS template
- Schedule
- ROM
- Cost volume
- BOEs
- BOM
- Pre-prepared estimating rules (e.g. for "training" costs, other frequent deliverables)
- Transmittal letter



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Additional Collateral

- “Golden nuggets”
 - Reusable win themes
 - Customer kudos
 - Relevant studies that you may want to reference such as Gartner Reports
 - Accomplishments and certifications details
- Marketing and Capture Collateral
 - Technical and management solution development checklists
 - White papers developed by technical gurus that relate to the specific areas this IDIQ or GWAC covers
 - Vehicle-specific capability statement
 - Case studies
 - Capability statements
 - Other information your BD or program staff can hand to the customer for them to get to know you better and to build trust
 - Win Strategy White Papers
 - Competitive analysis deck
- Just-in-Time training materials



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Techniques for Maintaining Up-to-Date and Accurate Content

- Select a champion responsible for organizing, updates, and cleansing
- Cleanse the data monthly

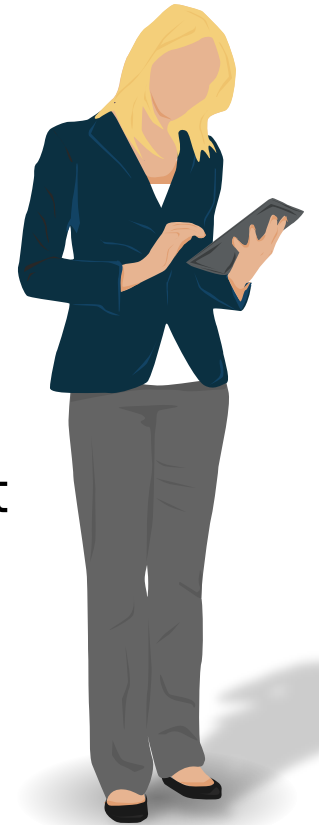
Data cleansing involves removing or correcting inaccurate, incomplete, or irrelevant data.

Enhances the quality of AI-generated outputs by ensuring the input data is clean and accurate.

Remove all irrelevant and piecemeal proposal sections, leaving only the color review versions

Remove automatically saved old document versions

Delete older versions of the graphics unless they are useful content-wise



AI to Classify and Tag Your Library

- **Classification:**

The process of categorizing data into predefined groups or classes.

Ex 1: Transition Plan

Ex 2: Resume

Helps in organizing data into meaningful categories, making it easier to manage and retrieve.

Streamlines data management and improves the AI's ability to generate contextually accurate responses.

- **Tagging Data:**

Labeling your data with relevant keywords or categories.

Ex: Transition, recruitment, onboarding, mobilization, U.S. Army, C-TNOSC

Ex 2: Ph.D, TS-SCI, Engineering, PMP

Helps in organizing and retrieving information quickly and efficiently.

Improves searchability and ensures that the AI can easily identify and use the most relevant information.



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Steps For Using AI to Cleanse, Tag, Build a New Library

1. Collect

- Gather all relevant documents and data sources.
- Consider using synthetic data to fill in gaps.

2. Cleanse

- Use AI tools to identify and correct inaccuracies.
- Remove irrelevant or duplicate information.

3. Tag

- Apply relevant tags to each document or data point.
- Ensure consistent tagging for better organization.

4. Classify

- Categorize data into predefined groups (e.g., Winning Proposals, Capabilities Statements).
- Use AI to automate the classification process for efficiency.

5. Build

- Organize the cleansed, tagged, and classified data into a structured library.
- Use simple folder structures for easy navigation.



Use AI to Create Synthetic Data For Your Proposal Library

Synthetic Data Definition: Synthetic data is artificially generated data that mimics real-world data.

Use-Case:

- Augments your existing data.
- Fills gaps where real data may be sparse or unavailable.

Benefit: Enhances your dataset with new and creative content.

Using Generative AI to Create Synthetic Data:

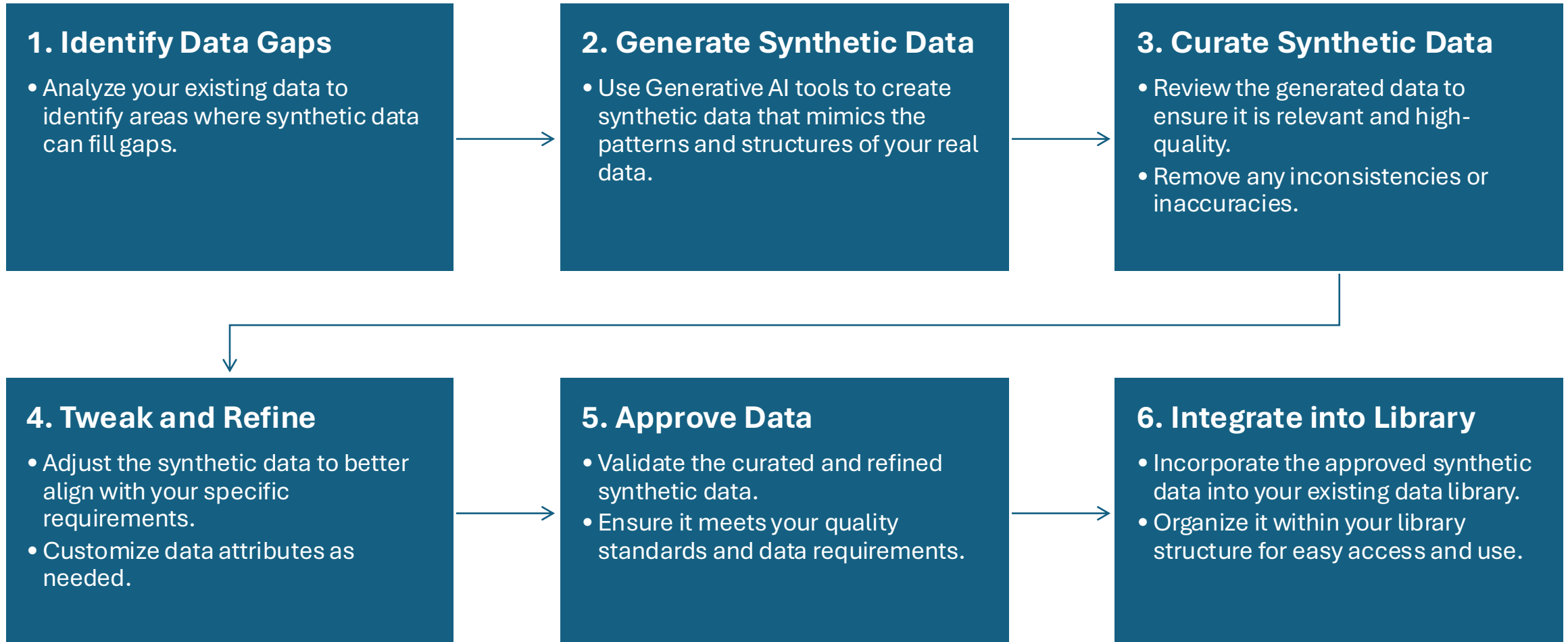
- Use Generative AI to create new synthetic data based on patterns and structures found in your existing data.
- Review and curate the generated synthetic data to ensure it meets quality and relevance standards
- Adjust and refine the synthetic data to better fit your specific needs and contexts.
- Approve the curated and tweaked synthetic data for inclusion in your library, ensuring it aligns with your data requirements and standards.



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Steps For Using AI to Create Synthetic Data



Example of Using AI in Proposal Development

- “You are a proposal graphic artist asked to create a verbal graphic description with text for all of the graphic’s elements for the following NASA SEWP VI proposal section: Capability to Handle High Volume of Requirements. The draft RFP specifies the need for offerors to demonstrate their strategy for managing a potentially high volume of customer requests (A.3.7.3(b)(4)(i)). The hot button here is the ability to scale and handle numerous requirements efficiently. The rationale is that NASA anticipates a significant demand for services under this contract and needs a contractor who can keep pace. Please, create a verbal graphic description that incorporate elements that reflect the BDC’s role in managing opportunities, such as a centralized tracking system or a dashboard view of the pipeline. The graphic should also indicate the BDC’s support in proposal planning and coordination, as well as resource direction for proposal development. Please, incorporate your concepts of Scalability Flowchart and Resource Allocation Model. Base it on the following guideline for Business Development Center (BDC) operations: [Excerpts from AASG Business Development Playbook]”*

The screenshot shows a chat window titled "NASA SEWP x" with a plus sign in the top right corner. The main content is a "Verbal Graphic Description for 'Capability to Handle High Volume of Requirements'". The text is structured as follows:

- Graphic Title:** Integrated Scalability and Resource Allocation for High-Volume Demand Management
- Central Element:** At the heart of the graphic is a centralized command center, symbolizing the Business Development Center (BDC), depicted as a sophisticated dashboard. This dashboard displays real-time data feeds, key performance indicators (KPIs), and the status of ongoing customer requests. The dashboard is labeled "BDC Operations Command Center."
- Scalability Flowchart:** Branching out from the command center are multiple process flow lines that represent the scalability flowchart. Each line leads to a different stage of customer request management, such as intake, assessment, allocation, execution, and completion. These stages are depicted as interconnected nodes with icons that symbolize their function, e.g., an inbox for intake and a checklist for completion.
- Resource Allocation Model:** Superimposed on the flowchart are dynamic bars and graphs that represent the resource allocation model. These elements dynamically adjust in size and color intensity to reflect resource scaling in response to demand spikes. For instance, a bar graph next to the execution node expands to show increased staffing levels during peak periods.
- BDC Support Indicators:** Along the flowchart, there are annotations and callouts that highlight the BDC's role in proposal planning and coordination. These include "Strategy Alignment," "Proposal Milestone Tracking," and "Resource Mobilization."
- Pipeline View:** The bottom section of the graphic features a simplified pipeline view that provides a snapshot of the volume and status of requests at various stages. This view is labeled "BDC Pipeline Overview" and uses color-coded segments to indicate different

At the bottom of the chat window, there is a text input field with the placeholder "Send a message...", a "Stop" button, and a status indicator "0/245000". Below the input field are several control buttons: "Select Assistant" (with a small icon), "Prompts" (with a dropdown arrow), "Plugins" (with a dropdown arrow), and "Select files" (with a file icon).



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Q&A Session

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service@ostglobalsolutions.com

301-384-3350

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