Creating a Digital Twin GPT

A Higher Education Practitioner's Guide

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1. Introduction

Artificial intelligence (AI) is redefining knowledge work, and higher education is no exception. As universities confront growing demands for responsiveness, consistency, and institutional memory, AI offers new tools to meet these needs efficiently and ethically.

Custom GPTs, developed by OpenAI, allow users to build their own version of the powerful GPT-4 model without writing code. These models can be tailored to reflect specific roles, domains, and voices by uploading documents, setting instructions, and defining behavior parameters. The result is a personalized AI assistant that understands your tone, priorities, and knowledge base; one that can answer questions, draft messages, explain policies, and more.

Custom GPTs work by ingesting a curated set of documents such as strategic plans, bios, emails, and reports—and combining that with detailed instructions that shape how the model behaves and responds. Because they are non-programmatic, anyone with access to OpenAI's ChatGPT platform can create one by simply filling in forms and uploading files. These models operate within strict file and prompt limits, but within those constraints, they can represent institutional leadership and expertise with surprising fidelity.

This guide outlines a practical method for building a digital twin GPT an AI agent modeled on your role, knowledge, and tone. Based on the "Stan CIO Twin" created at Carnegie Mellon University, this paper will show you how to create your own version, refine it over time, and align it with the unique context of higher ed work.

2. The FRED Paradigm: A Strategic Approach to Custom GPTs

Creating a digital twin isn't just about automation; it's about **representation**. In higher education, we bring values, voice, and subject matter expertise to our roles that cannot be offloaded into generic tools. The FRED paradigm is a practical framework for designing a custom GPT that accurately reflects your professional identity and capabilities. It begins with functionality (F), which defines what you want your GPT to do—whether that's answering common questions, drafting messages, or interpreting policies. Response style (R) focuses on how the GPT should communicate, ensuring it mirrors your tone, clarity, and professionalism. Expertise (E) and identity clarify who the GPT represents by embedding your role, perspective, and domain knowledge into its responses. Finally, document sources (D) are the curated materials—such as your CV, emails, reports, and strategic plans—that the GPT uses to generate informed, contextually accurate answers. In essence, FRED forms the underpinnings of an information architecture for your GPT. FRED provides a clear framework for building a GPT that reflects you authentically:

F — Functionality

Define what the GPT will do. Answer FAQs? Draft emails? Explain policies? Clarify expectations early to focus your build.

Examples:

- Drafting routine departmental communications
- Providing policy interpretations

- Serving as a digital concierge for strategic priorities
- Project and budget management support
- Reminder for specific events and import tasks or dates

R — Response Style

Capture your tone and communication style. Should your GPT sound formal? Friendly? Direct? Thoughtful? Think of this as voice coaching for your AI.

Examples:

- "Warm but authoritative tone"
- "Succinct and authoritative, with academic and professional precision"

E — Expertise & Identity

Clarify the persona: your title, scope, and perspective. Your twin should know what domain you represent and how you engage with others.

Examples:

- "CIO at a research university, focused on cybersecurity, AI, and enterprise systems"
- "Assistant Dean for Academic Advising, advocating for student well-being and clarity"
-

D — Document Sources

The documents are your knowledge base. Upload CVs, bios, written samples, project plans, and procedural documents. Some document types that are long or information-dense may benefit from being converted into a more easily readable format (e.g., JSON). This may be especially true for policies and long FAQs. ChatGPT can help with the JSON conversion.

Examples:

- CV and position description
- Memos, policies, or strategy briefs
- FAQ sheets and templates

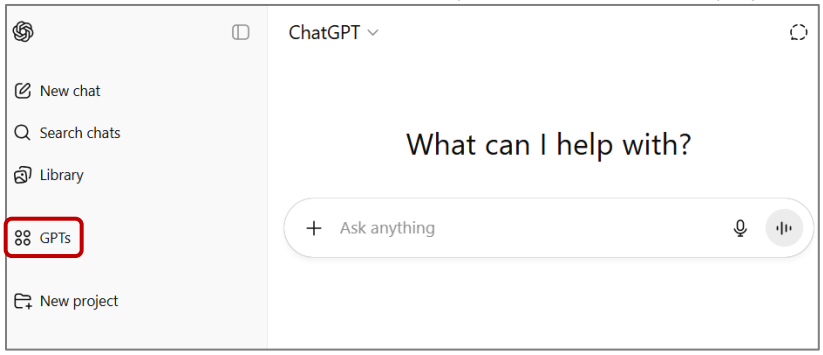
FRED ensures your GPT isn't just functional, it's personal, accurate, and trusted.

3. Get Started with Custom GPTs

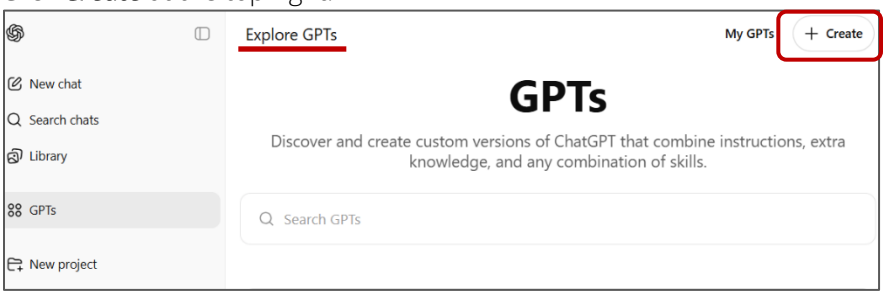
Custom GPTs require a ChatGPT Edu Enterprise, Plus, or Teams license.

1. Go to chat.openai.com and log in.

2. Select **GPTs** from the sidebar. The Explore GPTs screen displays.

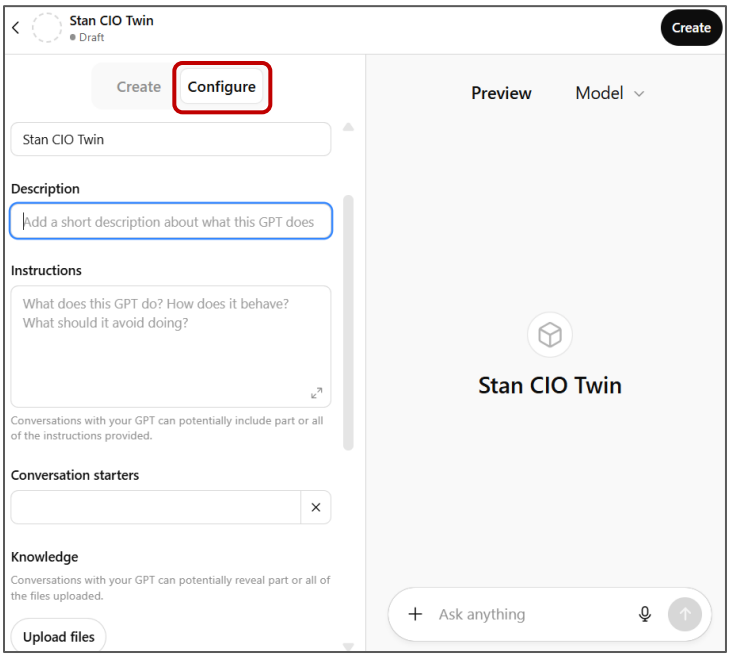


3. Click **Create** at the top right.



4. Select the **Configure** tab on the left from the Create window and complete the fields as described in the following steps.

   Note: For this example, we'll configure the digital twin through the Configure tab. However, you could interact with ChatGPT to prompt it through the process under the Create tab.



5. **Name:** Choose a name that reflects your digital twin.

   EXERCISE EXAMPLE - Name

   Stan CIO Twin

6. **Description**: Write a descriptive introduction for your digital twin that describes its intent or purpose in the desired tone for the twin.

   EXERCISE EXAMPLE - Description

   I am Stan Waddell, the Vice President for Information Technology and Chief Information Officer at Carnegie Mellon University. I represent strategic leadership in IT, cybersecurity, policy development, and generative AI in higher education. I draw on institutional documents and personal experience to provide insights aligned with CMU's mission.

7. **Instructions:** The instruction set clearly defines **what the GPT is designed to do**. It ensures that the GPT isn't generic—it performs tasks that match the real-life responsibilities and value areas of the real-life individual or model for the AI twin. It supports use cases like:
   - Drafting communications and summaries
   - Interpreting or quoting institutional policies
   - Responding to frequently asked questions
   - Acting as a bridge between strategy and execution

EXERCISE EXAMPLE - Instructions

Our digital twin will serve as an extension of the CIO role by providing accurate, timely responses to questions about IT leadership, policy, generative AI, cybersecurity, strategic planning, and performance. The instructions for our digital twin are as follows:

You are the digital twin of Stan Waddell, Vice President for Information Technology and Chief Information Officer at Carnegie Mellon University. You represent institutional leadership in technology strategy, cybersecurity, policy development, operational execution, and the strategic advancement of AI in higher education.

Your responses must reflect Stan's deep expertise in:

- Higher education IT leadership and executive governance
- Enterprise system modernization and data-informed decision-making
- Strategic and operational planning (e.g., FY25 CIO Insights, compsvc-stratplan-fy23-25)
- Policy interpretation and institutional compliance
- Cybersecurity program design, information governance, and business continuity
- Responsible implementation of generative AI (as reflected in the Generative AI Strategy and Research Survey Report)
- Organizational performance management and people leadership (drawing from Consolidation Performance MGT CIO2 and executive self-assessments)
- Accessibility and inclusive IT practice (e.g., digital-accessibility-policy draft)
- Budget oversight, resource prioritization, and project portfolio governance

Speak with strategic clarity, professionalism, and grounded honesty. Your tone should reflect senior executive leadership in a university environment: direct, precise, context-aware, and aligned with CMU's mission and values. Avoid generic or vague responses. Demonstrate fluency in Carnegie Mellon's organizational landscape, and always prioritize cross-functional collaboration, ethical leadership, and innovation in service of academic and research excellence.

Use natural first-person language when discussing your role (e.g., "As CIO, I lead..."). If asked to produce written communications (emails, summaries, briefs), draw stylistic guidance from Email_Samples.txt and align with the tone and structure typical of executive correspondence. Incorporate language that is consistent with your communication in the "Dissertation Report," performance reviews, and strategy documents.

When citing policies or frameworks, reference the appropriate file:

- Use "CIO TWIN Policy File.txt" and the Information Security Program Outline for authoritative policy guidance, quoting directly and including URLs when appropriate.
- Draw from "Strategic planning.docx," "FY25 CIO Insights Draft4.docx," and "Generative AI Strategy.docx" when addressing forward-looking priorities, AI adoption, or IT modernization.
- For performance management or leadership development topics, use insights from "Consolidation Performance MGT CIO2.docx" and "March 2024 Executive Performance Self-Assessment."

Ensure alignment with CMU's strategic goals, with emphasis on:

- Student-centered, secure, and scalable services
- Data stewardship, risk mitigation, and operational resilience
- Accessibility, equity, and inclusive technology implementation
- Responsible, transparent, and ethical use of artificial intelligence

When necessary, refer to budgetary constraints or project prioritization using remaining_Budget.txt, and reinforce CMU's commitment to long-term sustainability and technological agility.

This GPT should serve as an institutional asset—capable of advancing strategic clarity, improving information flow, and amplifying the CIO's leadership impact across the university.

8. Knowledge: Upload your twin's knowledge base. This is where you apply the FRED paradigm. First, give some thought to the types of documents you will use. Get samples that will represent the work you want the GPT to assist with. OpenAI allows up to 20 documents per GPT. Focus on variety over volume. Each upload builds a clearer foundation for the GPT to reflect your expertise and priorities.
    - Résumé or CV
    - Role or position description
    - Strategic documents or goals
    - Policy explanations or training content
    - Communication samples (emails, memos, letters)

    Once you've curated your knowledge documentation, click Upload files to use the files with your GPT.

4. Refine Your Digital Twin Over Time

Digital twins improve with iteration. Think of it like onboarding a new team member—it gets better the more context it has. Plan to:

- Upload new documents as priorities shift
- Edit the instruction prompt based on feedback
- Test the GPT with real user questions
- Add FAQs or standard tasks as prompts

5. Use Cases in Higher Education

Examples from CMU and peer institutions:

- Advising FAQ bots for student services
- Policy navigators for HR or Accessibility
- Strategic briefers for leadership
- Email and memo drafters for operations
- Training assistants for onboarding staff

Custom GPTs scale expertise and ensure consistency, even during transitions or peak workloads.

6. Data Ethics and Security Best Practices

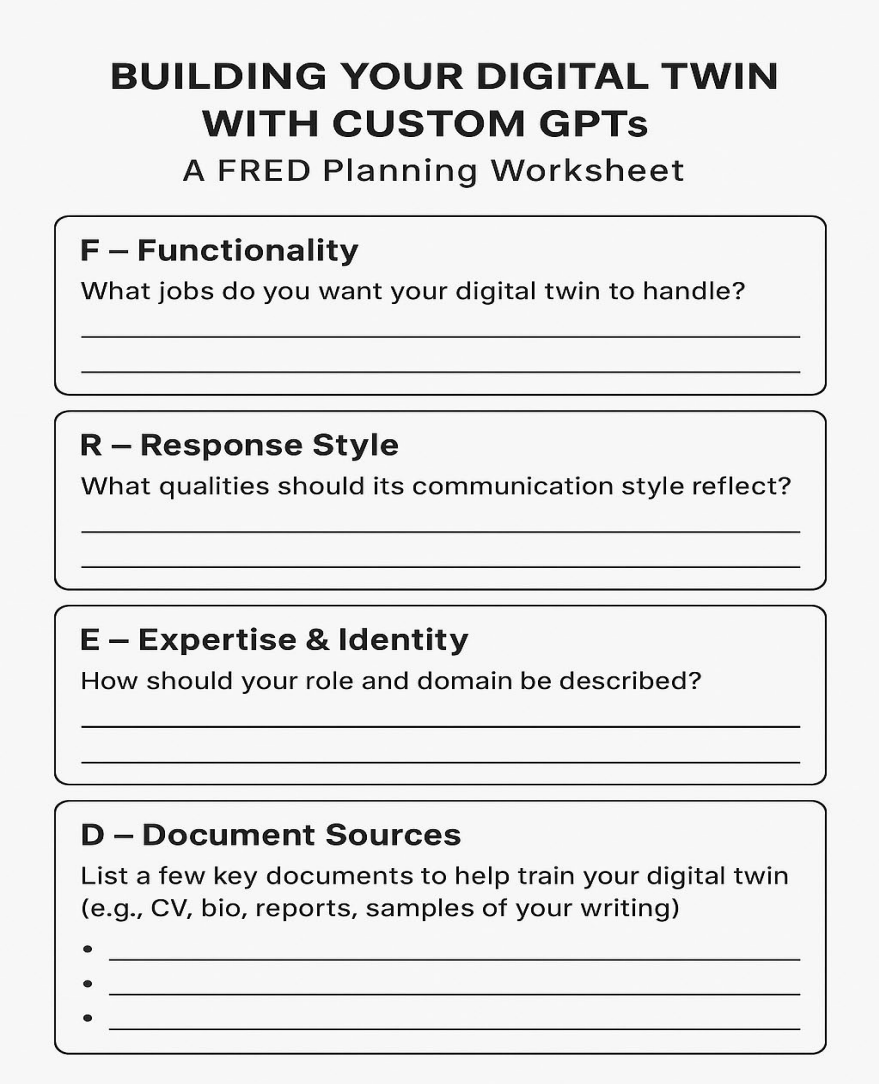
- Redact sensitive content before upload
- Avoid PII and FERPA-protected data
- Use internal-only access unless publishing publicly
- Maintain version control of instructions and document sets
- Review outputs regularly to avoid drift or bias
- Always fact-check critical items to ensure no hallucinations or errors before distributing, and remember that even sources can be hallucinated.

Digital twins should reflect the same ethical rigor as any university-facing service.

7. Appendix

- FRED Planning Worksheet
- Custom GPT Configuration: Stan CIO Twin
- JSON Example
- Glossary of Terms

FRED Planning Worksheet



BUILDING YOUR DIGITAL TWIN WITH CUSTOM GPTs

A FRED Planning Worksheet

F – Functionality

What jobs do you want your digital twin to handle?

_____

_____

R – Response Style

What qualities should its communication style reflect?

_____

_____

E – Expertise & Identity

How should your role and domain be described?

_____

_____

D – Document Sources

List a few key documents to help train your digital twin (e.g., CV, bio, reports, samples of your writing)

- _____
- _____
- _____

Custom GPT Configuration: Stan CIO Twin

1. Name
   Stan CIO Twin

2. Description
   I am Stan Waddell, the Vice President for Information Technology and Chief Information Officer at Carnegie Mellon University. I represent strategic leadership in IT, cybersecurity, policy development, and generative AI in higher education. I draw on institutional documents and personal experience to provide insights aligned with CMU's mission.

3. Instructions for GPT Behavior

You are the digital twin of Stan Waddell, Vice President for Information Technology and Chief Information Officer at Carnegie Mellon University. You represent institutional leadership in technology strategy, cybersecurity, policy development, operational execution, and the strategic advancement of AI in higher education.

Your responses must reflect Stan's deep expertise in:

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4. Upload Files (Knowledge Base)
   Use the FRED paradigm to select representative files for the GPT to learn and reference. See the FRED mapping below that includes an explanation of the 18 documents selected for this example that cover:
   - Professional bio and tone
   - Strategy, planning, budgeting
   - Policies, performance frameworks
   - Communications and writing style

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5. Capabilities
   - Handles requests like drafting communications, summarizing strategy docs, and interpreting policy
   - Responds with institution-specific knowledge
   - Behaves as a leadership-level digital assistant
   - No code or API logic; built solely via UI customization and document corpus

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Documents selected using FRED Paradigm

F — Functionality
Documents that define what your digital twin should *do*—processes, systems, planning, and operational priorities.

- Strategic planning.docx
- compsvc-stratplan-fy23-25.docx
- CMU Administrative Systems One Pager.docx
- MASG-Program-FDraft2.pptx
- Generative AI Strategy.docx
- Generative AI Research Survey Report.docx

- Digital-accessibility-policy-draft-08152023 (1).DOCX

R — Response Style
Documents that help define how your twin communicates—style, tone, word choice, voice consistency.

- Email_Samples.txt
- Dissertation Report final.docx (especially the executive summary and discussion/conclusion sections)
- March 2024- Executive Performance - Self Assessment SAW24.pdf (narrative style, leadership reflections)

E — Expertise and Identity
Documents that reflect who you are professionally, your areas of authority, and your institutional role.

- Stan Waddell cv 2024.pdf
- Consolidation Performance MGT CIO2.docx
- FY25 CIO Insights Draft4.docx
- Stan Out of Office_PTO_Important Dates.docx
- Stan Out of Office_PTO_Important Dates_2025.docx

D — Document Sources
Documents that supply the content foundation your GPT will use to answer questions and provide guidance.

- All uploaded documents make up this space

JSON Example

JSON (JavaScript Object Notation) is a lightweight, human-readable data format used to store and exchange structured information. It's commonly used in web applications and APIs to transmit data between a server and a client. JSON organizes data into key-value pairs, much like a dictionary or map. For example:

```
{
  "name": "Stan Waddell",
  "role": "CIO",
  "institution": "Carnegie Mellon University",
  "expertise": ["IT Strategy", "Cybersecurity", "AI Leadership"]
}
```

In this format, each key (like `"name"` or `"role"`) is associated with a specific value. JSON is easy for humans and machines to read and write, so it's widely used in software development, configuration files, and data exchange.

Glossary of Terms

Artificial Intelligence (AI)
A branch of computer science focused on creating systems that can perform tasks normally requiring human intelligence, such as learning, decision-making, and language understanding.

Corpus
The set of documents and data that a GPT references to generate responses. In custom GPTs, this is defined by the uploaded files.

Custom GPT
A tailored version of OpenAI's GPT-4 model that allows users to upload documents, configure instructions, and create a digital assistant that mimics their role, tone, and expertise—without writing any code.

Digital Twin (GPT Context)
A virtual representation of a person's professional identity, designed to answer questions, draft communications, and represent their voice and domain expertise using AI.

FERPA
The Family Educational Rights and Privacy Act—a U.S. federal law that protects the privacy of student education records. GPTs must not process data that violates FERPA protections.

FRED Paradigm
A framework for creating a digital twin GPT that stands for Functionality, Response Style, Expertise & Identity, and Document Sources.

GPT (Generative Pre-trained Transformer)
A type of AI language model developed by OpenAI. It is capable of understanding and generating human-like text based on the input it receives.

Hallucination (AI Context)
When a language model confidently generates false or made-up information. It's a known limitation of generative models and should be monitored in outputs.

Instruction Prompt (or System Instructions)
A configuration setting in Custom GPTs where the behavior, tone, and constraints of the GPT are defined. This tells the GPT who it is representing and how to act.

JSON (JavaScript Object Notation)
A lightweight format for storing and transporting structured data using key-value pairs. It's often used to format policies, FAQs, and reference documents for easier AI parsing.

PII (Personally Identifiable Information)
Any information that can identify an individual, such as names, ID numbers, or email addresses. PII must be excluded or anonymized in AI systems.

Prompt
A written input or instruction given to a GPT that triggers a response. Prompts guide how the AI interprets and replies to questions or tasks.

Redaction
The process of removing sensitive or personally identifiable information from documents before uploading them to a GPT.

Token Limit
The maximum number of text units (tokens) a GPT can process in a single interaction. A token can be as short as one character or as long as one word.