

The 4D Framework for AI Fluency

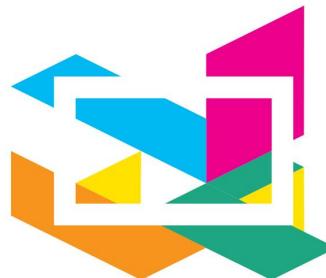
Who We Are

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**Ringling College
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UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Our Due Diligence

In the creation of this presentation we employed Claude Sonnet 3.7 to assist in text creation and refinement. We affirm that all AI-generated content underwent thorough vetting and curation. The final presentation accurately reflects our understanding, expertise, and intended messages. While AI systems were instrumental in the creative process, we maintain full responsibility for the content, its accuracy, and its presentation. This disclosure is made in the spirit of transparency and to acknowledge the evolving role of AI in content creation.

What is AI Fluency?

We define AI Fluency as the ability to interact with AI systems in ways that are:

- **Effective**
- **Efficient**
- **Ethical**
- **Safe**

Why do we need AI Fluency?

- We assert that AI can act as an authentic thinking partner for doing meaningful cognitive work, rather than viewing AI as merely an efficiency engine.
- This potential can only be realized through a new approach to thinking about how, when, and why to interact with AI.
- These new possibilities create the need for new competencies (collections of skills, knowledge, insights, values).

The 4Ds

DELEGATION: Setting goals and deciding whether and how to engage with AI.

DESCRIPTION: Effectively describing goals to prompt useful AI behaviors and outputs.

DISCERNMENT: Accurately assessing the usefulness of AI outputs and behaviors.

DILIGENCE: Taking responsibility for what we do with AI and how we do it.

Delegation

Making thoughtful decisions about what work is appropriate for you to, for AI to do, or for you and AI to do together, and how to distribute those tasks.

Delegation

Effective delegation requires both domain expertise and an understanding of AI capabilities.

- **Problem Awareness:** Clearly understanding your goals and the nature of the work before involving AI.
- **Platform Awareness:** Understanding the capabilities and limitations of different AI systems.
- **Task Delegation:** Thoughtfully distributing work between humans and AI to leverage the strengths of each.

Description

**Communicating with AI
in ways that create a
productive collaborative
environment**

Description

Clear communication with AI systems up front saves time and leads to better results.

- **Product Description:** Defining what you want in terms of outputs, format, audience, and style.
- **Process Description:** Defining how the AI approaches your request.
- **Performance Description:** Defining the AI's behavior during your collaboration.

Discernment

The ability to thoughtfully and critically evaluate what AI produces, how it produces it, and how it behaves.

Discernment

Discernment works hand-in-hand with Description in a continuous feedback loop.

Subcategories:

- **Product Discernment:** Evaluating the quality of what AI produces.
- **Process Discernment:** Evaluating how the AI arrived at its output.
- **Performance Discernment:** Evaluating how the AI behaves during your interaction.

Diligence

**Taking responsibility for
our AI interactions**

Diligence

Different contexts (personal, academic, professional) may have different expectations for disclosure and verification

Subcategories:

- **Creation Diligence:** Being thoughtful about which AI systems we use and how we interact with them
- **Transparency Diligence:** Being honest about AI's role in our work with everyone who needs to know
- **Deployment Diligence:** Taking responsibility for verifying and vouching for the outputs we use or share

Assessing AI Fluency

The 4D Framework allows us to think through AI fluency step by step

- As a descriptive model of human-AI interaction
- As a prescriptive model of optimal use of AI systems

How Well Were the Competencies Performed?

Delegation

Description

Discernment

Diligence

Our Nightmare

Delegation

Description

Discernment

Diligence

I pasted the assignment into a free AI tool then turned in the output as my own work without review or citation.

Our Dream

Delegation

Description

Discernment

Diligence

I wrote a draft, chatted with a carefully chosen AI as an editor to bring out my voice and viewpoint, adopted its best suggestions, and turned in the essay along with a thoughtful reflection on my engagement with AI.

Homework is So Easy Now!

Delegation

Description

Discernment

Diligence

I pasted the assignment into Deep Research mode then turned in the output as my own work.

I cited AI, what's the problem?

Delegation

Description

Discernment

Diligence

I wrote an outline, used AI to fill it out, double-checked all the facts and citations to make sure they're real, turned it in what it gave me, citing the tool and giving a link to the chat.

Wrong tool for the task

Delegation

Description

Discernment

Diligence

I had AI read my essay, explained to it my workflow, and had AI write a first draft of my personal reflection for me. I cited my use of AI.

Our Actual Nightmare

Delegation

Description

Discernment

Diligence

Building Assignments with the 4D Fluency Framework

- As a step by step process
- As a pair of nested iterative loops
- As four starting points for inquiry

1. DELEGATION: Setting goals and deciding whether and how to engage with AI.

2. DESCRIPTION: Effectively describing goals to prompt useful AI behaviors and outputs.

3. DISCERNMENT: Accurately assessing the usefulness of AI outputs and behaviors.

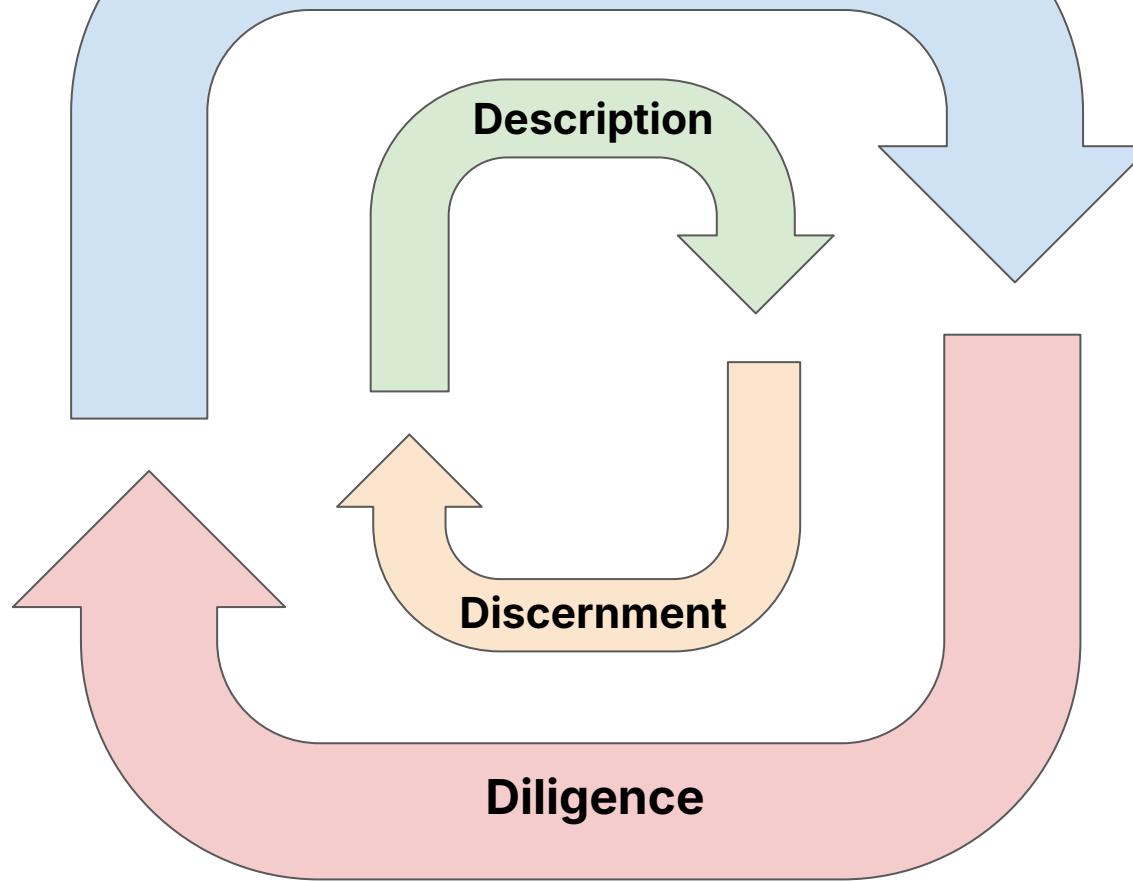
4. DILIGENCE: Taking responsibility for what we do with AI and how we do it.

4D-Informed Prompt Crafting Assignments

For simple interactions (e.g. asking an AI to critique the arguments in a student's essay) require 4D process thinking:

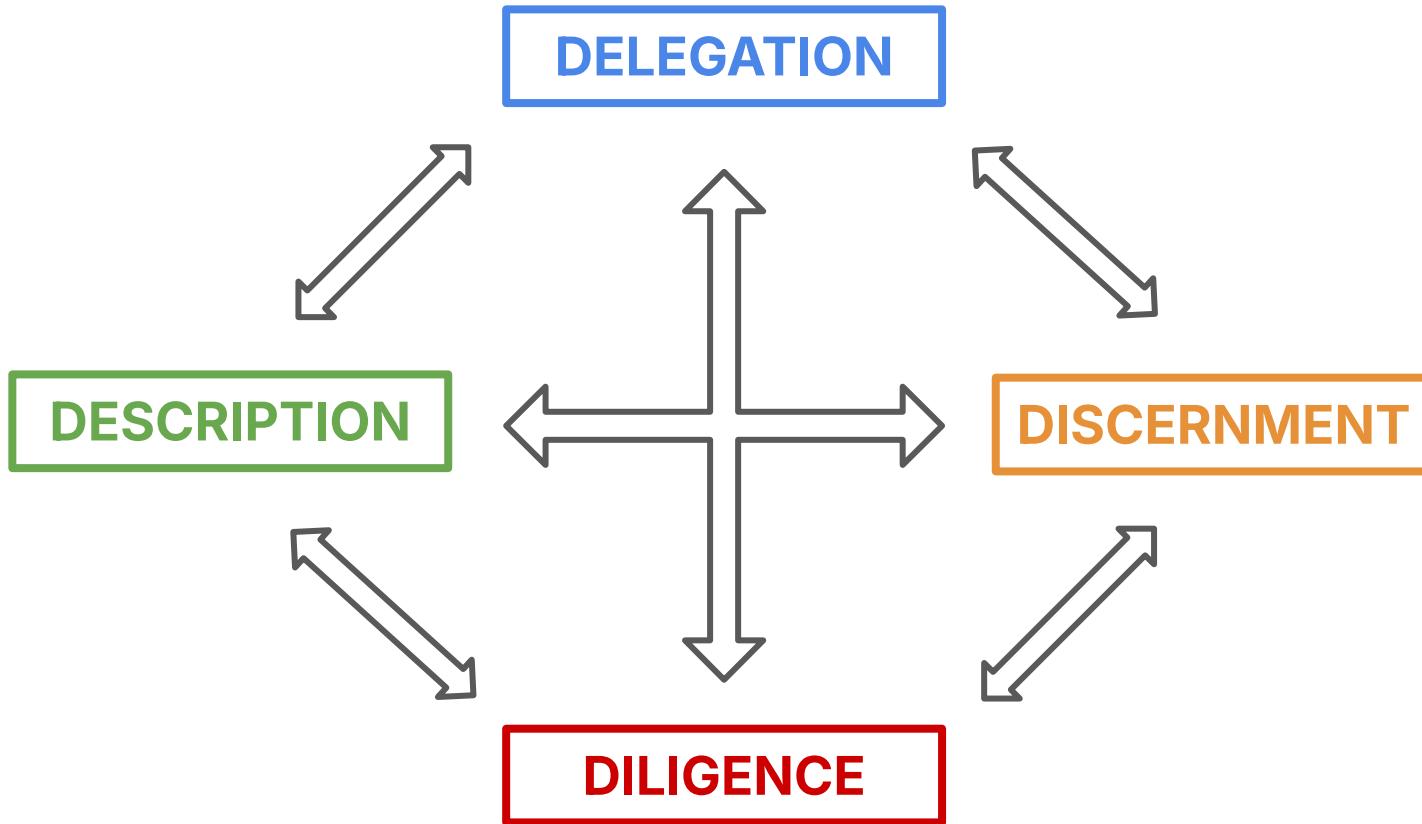
1. **Delegation**: Formal decomposition of the work to be done (identifying assertions lacking robust evidence)
2. **Description**: Articulate tasks in best-practice form (with context, audience, constraints, etc)
3. **Discernment**: Deciding on and applying validation criteria
4. **Diligence**: Clearly communicate the actions of both AI and student.

Delegation



Creative Writing Assignment

1. **Topic Selection** **[Delegation]** Select a topic for your essay or story and establish broad strokes guidelines for success.
2. **Ideation with AI** **[Description] [Discernment]** Use an AI tool to brainstorm ideas for your writing project.
3. **AI-Generated Outline** **[Description]** Prompt the AI to produce an outline for your chosen topic based on the in-class ideation.
4. **Outline Revision** **[Discernment]** Use Track Changes to edit and revise the outline. Focus on improving structure, adding your own ideas, and refining the AI's suggestions.
5. **AI-Generated Draft** **[Description]** Use this outline as part of a detailed prompt for the AI to produce a full draft of your writing piece.
6. **Draft Revision** **[Discernment]** Use Track Changes to thoroughly revise the draft. Focus on enhancing the content, improving the style, and ensuring the piece aligns with your creative vision.
7. **Final Draft and Reflection** **[Diligence]** At the end of the text, include your Diligence Statement disclosing how AI was used



Starting With Any D

Start with Diligence: Consider the industry, audience, legal, and personal ethical constraints on the use of AI before delegating tasks.

Start with Discernment: Recognize and analyze useful outputs and explore processes for reproducing or building on them.

Start with Description: Develop a potent prompting technique and determine best use cases for its outputs.

Start with Delegation: Experiment with a specific AI system to understand its limits and capabilities.

Building AI Fluency Informed Curricula

The AI Fluency Framework is already in being used in curriculum development:

- University College Cork
- Ringling College of Art and Design
- Higher Ed Authority of Ireland
- Anthropic Academy

New Modules (Courses) at UCC

- **IS4452 AI in Organisations and Society (Undergrad)**
- **IS6017 AI as a Disruptive Technology (Grad)**
- **IS6144 AI-Assisted Application Development (Grad)**

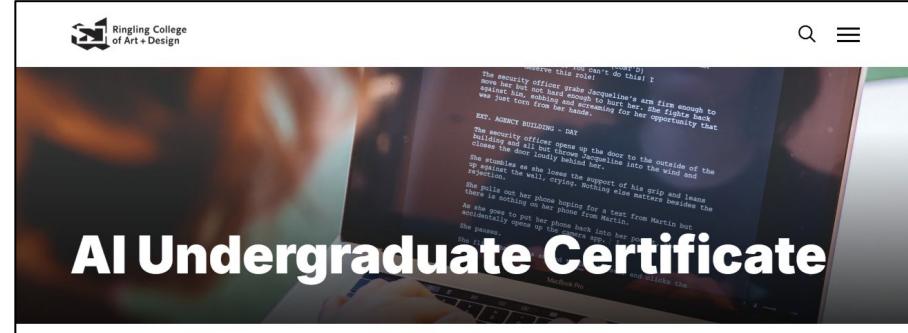


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Ringling College AI Certificate

- **LIBA 215: Fundamentals of AI**
- **ILLU 303: AI Techniques and Processes for Art**
- **ELEC 302: Topics in Artificial Intelligence**



The screenshot shows the Ringling College of Art + Design website for the AI Undergraduate Certificate. The header features the college's logo and name. Below the header, a large image of a person working on a laptop with text overlaid. The text is a snippet from a story, likely related to AI, and includes lines such as "I can't do this role!", "The security officer grabs Jacqueline's arm firm enough to", and "The security officer opens up the door to the outside of the". The main title "AI Undergraduate Certificate" is displayed prominently in large white text. Below the title, a sub-headline reads "Enhance your degree with an AI Undergraduate Certificate". A descriptive paragraph follows, stating that the certificate is available to all current students and aims to provide a fundamental understanding of AI technologies and their societal implications. At the bottom, another paragraph describes the program's goals, mentioning hands-on experience with AI tools and the responsible integration of AI into creative practices.

The security officer grabs Jacqueline's arm firm enough to
against her but not hard enough to hurt her. Her right hand
was just torn from her hands.
REV. AGENCY BUILDING - DAY
The security officer opens up the door to the outside of the
closed door and loudly呼籲 her.
She staggers as she loses the grip of his arm and leans
against the wall, crying. Nothing else matters besides the
she pulls out her phone hoping for a text from Martin but
there is nothing but her phone friend.
She goes to get her phone back into her pocket and accidentally opens up the phone back into her hand.
She pauses.
She reaches for the screen and clicks the

AI Undergraduate Certificate

Enhance your degree with an AI Undergraduate Certificate

This AI Undergraduate Certificate is available to all current Ringling College students. It is designed to equip students with a fundamental understanding of AI technologies, their application in art and design, and their societal implications.

Students will gain hands-on experience with AI tools and engage with the potential benefits and harms of AI across various artistic disciplines. The program encourages the responsible and ethical integration of AI into creative practices, providing an understanding of the opportunities, risks, and ethical and legal concerns that AI presents. This program is designed to empower the next generation of artists, designers, and creatives with the skills and knowledge to successfully participate in the AI-driven creative landscape, fostering a community of innovative thinkers capable of shaping the future of art with AI, rather than simply being shaped by it.

Building Open Educational Resources with Anthropic Academy

AI Fluency: Framework & Foundations

ANTHROPIC



HEA | HIGHER EDUCATION AUTHORITY
AN TÚDARÁS UM ARD-OIDEACHAS



<https://anthropic.com/ai-fluency>

Framework Summary Document

ringling.libguides.com/ai/framework



Questions?