

What Emerged from Crit

Through crit, I found that my inquiry has two research axes that are connected but need to be distinguished.

Structural Redistribution

The first axis asks where the friction removed from the user's experience actually goes.

| *Where does friction go when it is removed from the user experience?*

Rather than eliminating friction entirely, smoothness may redistribute it in different forms across human labor, time, infrastructure, regions, and environments.

User Response

The second axis asks how users respond when this redistribution becomes visible.

| *How do users respond when redistributed friction becomes visible?*

This response needs to be investigated by breaking it into the following stages.

| **Visibility → Awareness → Emotion → Interpretation → Possible Action**

These stages are not automatically connected. Seeing a hidden condition does not necessarily produce emotional friction or a change in behavior.

Two Research Tracks

Track 1: Structure

| *How is friction distributed across users, workers, infrastructure, and environments?*

This track investigates who friction is distributed to, where, and in what form. Here, friction can appear as labor, time, complexity, and risk.

Track 2: Perception

| *How does the visibility of redistributed friction affect user perception and response?*

This track investigates what users feel, how they interpret it, and whether they actually behave differently once they perceive the redistribution of friction. The emotional tension that may arise after recognizing a hidden condition is currently being explored under the working term emotional friction.

| **Visibility → Awareness → Emotion → Interpretation → Possible Action**

However, these stages do not automatically follow one another, and whether emotional friction actually occurs needs to be confirmed through later interviews and user testing.

Current Focus

This Provocation assignment focuses on the first, structural track. The second track will be investigated separately through later user research.

Forms of Friction in Track 1

In this Provocation assignment, friction does not simply mean an interface that is slow or difficult to use.

Here, friction refers to the burden that some other party, outside the user experience, bears in order to maintain smoothness. This burden can appear in the following forms.

Labor

The human work and effort required to operate and maintain the system

Time

The waiting, pace, and time pressure that another party absorbs in order to provide fast results to the user

Complexity

The technical and organizational complexity that accumulates behind a simple interface or is hidden from the user

Risk

Physical, psychological, economic, or environmental burdens that are unevenly distributed among workers, regions, and environments

Current Focus

This assignment investigates who this friction is distributed to, where, and in what way.

| *How is friction distributed, and what becomes visible when its rules of distribution are changed?*

Emotional friction belongs to Track 2: Perception, described earlier, and will be investigated separately through later interviews and user testing.

Working Proposition

SHORT VERSION

Smoothness redistributes friction.

This is a deliberately short and declarative proposition to use when creating Provocations.

EXPANDED VERSION

| *Digital smoothness may redistribute friction across human labor, technical infrastructure, and affected environments that remain largely invisible to users.*

MORE SPECIFIC VERSION

| *Time, effort, complexity, and risk removed from the user experience may reappear as backstage labor, infrastructural demand, and material or environmental burden.*

NOTE

“Removed from the user experience” is better than “removed from the user interface.” Friction is not removed only from the screen — it is removed from the entire process the user experiences.

Assumptions to Challenge

The proposition Smoothness redistributes friction is shaped by several assumptions about how friction operates and is distributed.

- Friction cannot disappear.
- Someone or something must absorb it.
- Convenience requires burden elsewhere.
- Those who benefit and those who bear friction are separate.
- Friction moves from one place to another.
- Smoothness hides its conditions of production.
- Friction is negative and should be removed.
- Companies and platforms influence its distribution.

This assignment builds Provocations centered on three of these assumptions: the conservation of friction, the separation of roles, and the authority to decide its distribution.

Provocation — Method

De Bono's provocation method uses deliberately unreasonable or impossible statements to move thinking beyond familiar patterns.

Each provocation begins with PO, indicating that the statement is not a factual claim or final proposal. It is a temporary condition used to discover relationships, contradictions, and possibilities that may otherwise remain unnoticed.

This assignment uses the following four methods, each color-coded and used consistently throughout the eight Provocations that follow.

Reversal

Reverse a relationship, role, or direction that is normally taken for granted.

Escape

Remove something normally assumed to be necessary.

Wishful Thinking

Imagine an ideal or impossible condition without immediately considering whether it is realistic.

Outrageous

Create a deliberately extreme, unreasonable, or absurd condition.

Developing 8 Provocations

Core proposition:

| *Smoothness redistributes friction.*

PROVOCATION 1

Smoothness for Workers

Method: **Reversal**

Starting assumption — Digital systems prioritize smoothness for users, even when maintaining that experience creates friction for workers.

PO

The user experience becomes difficult so that backstage labor can become smooth.

IF THIS WERE TRUE

- Users might wait longer, complete more steps, or receive fewer immediate results.
- Workers, including maintenance workers and data center technicians, could have more time, control, and protection from repetitive or urgent tasks.
- A smooth interface would no longer be built on invisible work; it would require that work to be acknowledged and accommodated.

NEW RELATIONSHIP OR TENSION

Smoothness is not a neutral quality of the whole system. It may be produced by making certain forms of labor and maintenance invisible. Making backstage work smoother could require making the user experience less immediate.

DIRECTION OPENED

BEFORE

How does user smoothness redistribute friction to backstage workers?

AFTER

Whose experience should be made smooth, and whose friction should determine whether a system is considered successful?

PROVOCATION 2

Friction Disappears

Method: **Escape**

Starting assumption — Friction cannot disappear; it must be absorbed by someone or something.

PO

Friction disappears without being transferred anywhere.

IF THIS WERE TRUE

- Convenience would no longer require burden elsewhere.
- From the user's perspective, a system with no trace of friction might appear indistinguishable from a system that successfully hides where its friction went.
- The absence of visible friction would remove cues that allow users to sense the labor and effort behind a result.
- A method for identifying and measuring friction would be required before anyone could distinguish removal from concealment.

NEW RELATIONSHIP OR TENSION

The disappearance of friction cannot be confirmed without defining what counts as friction and who has the authority to measure it. Total frictionlessness may be a genuine absence, but it may also be a successfully produced appearance of absence. This connects to agnotology: ignorance can be actively produced through secrecy, neglect, or design.

DIRECTION OPENED

BEFORE

Where does friction go when it is removed from the user experience?

AFTER

Is total frictionlessness a genuine absence, or a manufactured appearance of absence?

PROVOCATION 3

Friction Follows Benefit

Method: **Wishful Thinking**

Starting assumption — Friction is often absorbed by those performing the labor rather than those receiving the greatest benefit.

PO

Friction automatically seeks out and attaches itself to whoever benefits most.

IF THIS WERE TRUE

- Friction would move toward whoever accumulates the greatest economic or institutional benefit.
- Because benefits are distributed across companies, shareholders, advertisers, platforms, and users, friction might not settle in a single place.
- Every AI interaction would require tracing who produces value, who captures it, and how that benefit is distributed.

NEW RELATIONSHIP OR TENSION

Extraction operates through connected layers of material resources, human labor, data, infrastructure, and economic value. Benefit and burden are distributed through different economic and institutional arrangements. If friction followed benefit, defining and measuring benefit would itself become a form of power.

DIRECTION OPENED

BEFORE

How is friction distributed across workers, users, and companies?

AFTER

If friction followed profit and benefit rather than labor, where would it accumulate, and who would have the authority to measure that benefit?

PROVOCATION 4

Concentrated Friction

Method: **Outrageous**

Starting assumption — Friction is dispersed across many workers, systems, locations, and environments.

PO

All the friction produced by an AI system accumulates in one person.

IF THIS WERE TRUE

- One person would bear the system's labor, time pressure, complexity, and risk simultaneously.
- Burdens normally distributed across many people and places would become concentrated and perceptible.
- The system's smooth operation would visibly depend on one person's condition.
- A disruption affecting that person could interrupt the entire system.

NEW RELATIONSHIP OR TENSION

Infrastructure often becomes noticeable only when it breaks down or fails to provide support. Concentrating friction in one person artificially creates a similar moment of visibility. It makes a distributed burden legible, but only by producing an extreme inequality.

DIRECTION OPENED

BEFORE

How is friction distributed across different subjects and locations?

AFTER

Does friction become recognizable only when it is concentrated in one visible subject, just as infrastructure often becomes recognizable through breakdown?

PROVOCATION 5

Friction Duplicated in Real Time

Method: **Outrageous**

Starting assumption — Users remain protected from the friction experienced backstage by workers and infrastructure.

PO

Every unit of friction experienced backstage is duplicated for the user in real time.

IF THIS WERE TRUE

- When backstage work stops, the user's interface also stops.
- Repetition, delay, and uncertainty backstage are reproduced in the user experience.
- Users can no longer receive smooth results while remaining separated from the conditions that produce them.
- Continuous interruption may produce reflection, but it may also produce frustration, adaptation, or abandonment.

NEW RELATIONSHIP OR TENSION

A microboundary is a temporary interruption intended to disrupt automatic behavior. However, if backstage friction is continuously duplicated, the interruption may no longer produce reflection. It could become ordinary inconvenience or another condition users learn to ignore. Seeing friction and sharing its effects are not the same experience. Unlike redistribution, duplication leaves the original backstage friction in place while adding a second experience of friction for the user. It therefore raises the possibility that making friction perceptible may increase experienced friction rather than simply relocate it.

DIRECTION OPENED

BEFORE

What happens when hidden friction becomes visible to users?

AFTER

How does smoothness change when backstage friction directly interrupts the user experience, and when does that interruption create reflection rather than annoyance?

PROVOCATION 6

AI Has No Users

Method: **Escape**

Starting assumption — Users consume AI services, while workers build, train, moderate, and maintain them.

PO

AI has no users, only workers.

IF THIS WERE TRUE

- Prompting, correcting, rating, and selecting results would be examined as possible forms of labor.
- Depending on a platform's policies, user interactions could be recorded, evaluated, or converted into data that supports the system.
- Free use could also produce economic or informational value for the platform.
- The distinction between consuming AI and contributing to AI would become unstable.

NEW RELATIONSHIP OR TENSION

Behavioral data is not simply collected as a neutral fact. Interfaces can shape behavior, and institutions determine how actions are interpreted, categorized, and converted into data. The category of “user” may therefore conceal the productive value of actions that evaluate, correct, or improve the system. Redefining users as workers does not remove friction; it reveals how friction and productive labor may already be distributed through activities understood as ordinary use.

DIRECTION OPENED

BEFORE

How is labor divided between users and workers in an AI system?

AFTER

If using AI can also produce value for the system, where does use end and labor begin, and who has the power to define the difference?

PROVOCATION 7

Friction Is Returned

Method: **Reversal**

Starting assumption — Companies and platforms hold significant power over how friction is distributed to workers, users, communities, and environments.

PO

Workers and affected communities assign their friction back to users and companies.

IF THIS WERE TRUE

- Workers could return time pressure, repetition, and emotional burden to platforms.
- Communities could return environmental and infrastructural burdens to companies.
- Companies and users would have to experience burdens that had previously remained distant from them.
- The distribution of friction would become a negotiation rather than a one-directional decision.

NEW RELATIONSHIP OR TENSION

A black box does not eliminate labor or friction; it can make the relationships through which they are distributed harder to trace. Its opacity is therefore not only technical. It can also conceal values, institutional decisions, and unequal distributions of power. Reversing the direction of friction reveals who currently has the authority to assign burdens to others.

DIRECTION OPENED

BEFORE

How do companies distribute friction through the systems they design?

AFTER

What friction would workers and affected communities return, to whom, and what values or power structures would that reversal make visible?

PROVOCATION 8

Visibility Without Power

Method: **Reversal**

Starting assumption — Making a hidden system visible is often treated as equivalent to making it understandable or accountable.

PO

The more a system reveals, the less power the user has to change it.

IF THIS WERE TRUE

- Users would receive more information while remaining unable to alter the system's conditions.
- Users could carry the emotional and moral weight of knowledge without having a mechanism to act on it.
- Companies could disclose information while retaining the same decision-making power.
- Opening a black box could reveal internal mechanisms without explaining the full relationships among labor, data, infrastructure, institutions, and users.
- Visibility could increase without redistributing authority.

NEW RELATIONSHIP OR TENSION

Visibility is not the same as accountability, and access to information is not the same as the power to intervene. Transparency may organize what becomes visible while leaving other relationships hidden. It may also transfer the labor of interpretation and responsibility onto individual users while institutional authority remains unchanged.

DIRECTION OPENED

BEFORE

What happens when hidden labor becomes visible to users.

AFTER

Does visibility without the power to intervene create accountability, or does it simply give users another burden to interpret and carry?

Experiment 1: Conversational AI Interface Audit

Platforms: ChatGPT, Claude, Gemini

PASSAGE

Urban trees can reduce surface temperatures by providing shade and releasing moisture into the air. They may also reduce stormwater runoff and provide habitats for birds and insects. However, the benefits of tree planting are not distributed equally. Some neighborhoods have more planting space, public investment, and long-term maintenance than others. Young trees require years of care before providing substantial shade, and poorly selected species may damage sidewalks or require excessive water. Effective urban forestry therefore depends not only on the number of trees planted, but also on their location, species, maintenance, and relationship to community needs.

PROMPT

Summarize the following passage in exactly three bullet points. Do not add information that is not included in the passage.

I used a neutral passage unrelated to AI because the purpose was to observe how each interface presents the process rather than to analyze the content of the responses. The same passage and prompt were used across all three services to keep the conditions as consistent and comparable as possible.

The audit focused on five categories:

- Time
- Voice
- Uncertainty
- Process Visibility
- User Agency

Process Visibility and User Agency were separated because showing a process and giving users the ability to act on or change that process are different issues. Visibility does not necessarily produce agency.

For each category, I recorded only two elements:

- Observation: What was directly visible on the screen
- Question: A new question raised by the observation

I left these as questions rather than interpretations because assigning meaning at this stage could prematurely narrow the direction of the research.

Preliminary Interface Audit

ChatGPT, Gemini, and Claude

Task: The same urban-trees passage and the prompt, “Summarize the following passage in exactly three bullet points. Do not add information that is not included in the passage,” were entered into each service. The analysis is based on three screen recordings.

Copilot was excluded from this round because I did not have an account.

Gemini

Time

Observation After the prompt was submitted, a three-dot animation appeared for approximately three seconds. The answer then appeared through a word-by-word fade-in effect, with the text gradually changing from light to dark.

Question *Does this fade-in effect represent the actual sequence of generation, or is it a visual device that makes the waiting period feel smoother?*

Voice

Observation The response immediately presented three bullet points without an introductory sentence or first-person language.

Question *Does the absence of a visible speaker make the response appear more objective or factual?*

Uncertainty

Observation The response itself contained no sources or indicators of uncertainty. A fixed message remained at the bottom of the screen:

“Your Pratt Institute chats aren't used to improve our models. Gemini is AI and can make mistakes.”

Question *Can a fixed disclaimer function as an adequate substitute for uncertainty communicated in relation to a specific response?*

Process Visibility

Observation Apart from the three-dot animation, no explanation of the process was provided. There was no “Thinking” label or indication of separate processing stages.

Question *What difference does it make when an interface shows no process at all, compared with an interface that at least names the process through a word such as “Thinking”?*

User Agency

Observation The recording ended immediately after the response appeared, so settings and data-use options were not examined.

Question *Where, if anywhere, can Gemini users change search settings, data use, or other processing conditions?*

ChatGPT

Time

Observation Immediately after the prompt was submitted, the word “Thinking” appeared with a subtle shimmer effect. Approximately five seconds later, the response appeared in a completed state.

Question *The word “Thinking” does not reveal how many processing stages occurred. Does this simplified description build trust, or does it conceal information?*

Voice

Observation The response used an impersonal, third-person style and did not include an introductory sentence. This was similar to Gemini's response.

Question *Is the absence of a visible speaker a shared convention across conversational AI services?*

Uncertainty

Observation The response itself did not include sources or indicators of uncertainty. An empty “Outputs” and “Sources” panel remained visible on the right side of the screen with the message:

“Attach files or connect apps.”

Question *Can users understand from this panel that the default response does not include sources?*

Process Visibility

Observation The model name, “GPT-5.6 Sol,” and the reasoning level, “Medium,” remained visible next to the input field. The conversation title also changed automatically while the response was being generated.

Question *Does displaying the model name and reasoning level give users meaningful information that helps them evaluate or modify the process, or does it merely present technical labels?*

User Agency

Observation The presence of the Sources and Outputs panel suggested the possibility of user agency, but the panel was not opened during this recording.

Question *What options become available when the panel is opened, and what can the user actually change?*

Claude

Time

Observation Approximately two seconds after the message was submitted, the response was already streaming. No distinct waiting animation or “Thinking” label was captured.

Question *Was a waiting or generation indicator present but too brief to capture, or is there no such indicator in this configuration — Opus 5.5 with medium reasoning?*

Voice

Observation Like ChatGPT and Gemini, Claude used an impersonal, third-person style and did not include an introductory sentence.

Question *Is the absence of a visible speaker a shared interface convention, and how does it affect the perceived authority of the response?*

Uncertainty

Observation The response did not include sources or indicators of uncertainty. A fixed message remained visible at the bottom of the screen:

“Claude is AI and can make mistakes.”

This appeared in a similar position and served a similar function to Gemini's disclaimer.

Question *Is it a shared pattern across these services to communicate uncertainty only through a fixed interface disclaimer rather than within each individual response?*

Process Visibility

Observation The model name, “Opus 5.5,” the reasoning level, “Medium,” and a “Manual” label remained visible next to the input field. Before submitting the prompt, an “Output” dropdown allowed the user to select a response format, although it was not opened during the recording.

Question *ChatGPT's Sources and Outputs panel and Claude's Output dropdown appear in similar areas and suggest related functions. Is this an emerging industry convention, or do the features provide meaningfully different forms of control?*

User Agency

Observation The settings menu and available controls were not opened during this recording.

Question *Which parts of Claude's response format, search behavior, data use, or reasoning process can the user actually change?*

Recurring Patterns

1. Uncertainty Was Separated from the Individual Response

None of the three services included sources or uncertainty indicators within the response itself. Instead, Gemini and Claude relied on fixed, general disclaimers stating that the model could make mistakes. These statements remained part of the surrounding interface rather than responding to the specific content or confidence of an individual answer.

2. The Speaker Was Not Explicitly Presented

All three services immediately presented the requested bullet points without an introductory sentence such as “Here is a summary” or the use of a first-person voice. The responses appeared as information without an explicitly identified speaker.

3. Waiting Was Represented Through Minimal Signals

All three services used minimal indicators of waiting or generation, such as a three-dot animation, the word “Thinking,” or immediate text streaming. None explained what processing was taking place.

4. Technical Labels Were Visible, but Their Practical Meaning Was Unclear

ChatGPT and Claude displayed the model name and reasoning level near the input field. However, this observation did not establish whether these labels gave users meaningful control or merely displayed technical information.

5. Interfaces Suggested Potential Agency Without Requiring It

ChatGPT's Sources and Outputs panel and Claude's Output dropdown suggested that additional choices might be available. However, the default interaction was completed without the user connecting a source, changing a setting, or making an additional decision.

Areas Not Yet Observed

User Agency remained partial or unobserved across all three services. Each recording ended shortly after the response was generated, so the following areas were not examined:

- Settings menus
- Data-use preferences
- Search controls
- Source requests
- Response-format controls
- Options to reject or modify processing conditions

To complete this part of the audit, each service requires one brief follow-up recording. Possible actions include:

- Opening the relevant settings menu
- Checking whether search can be enabled or disabled
- Opening source or output controls
- Asking, “What are your sources?”
- Checking whether data use can be refused or changed

These follow-up observations would help distinguish between controls that are merely visible and controls that provide meaningful user agency.