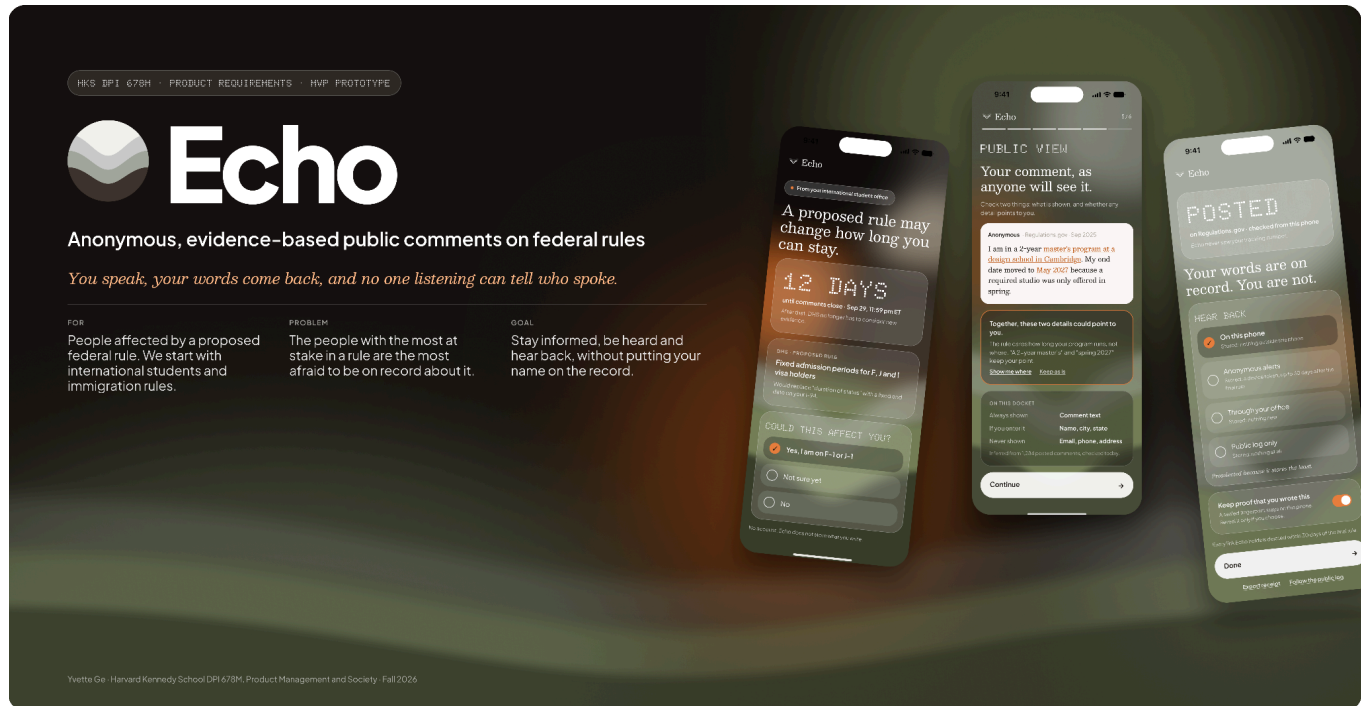




[Echo PRD \(DPI 678M\)_Yvette Ge](#) Since several links have been inserted, it would be better to view it via a Google Doc link.

Contents

1. Goals
2. User Personas (*Figure 1: Persona board*)
3. User Stories (*Figure 2: User Journey Map and Stories*)
4. Prototypes (*Figure 3: Service Blueprint; Figures 4 to 8: five chapter boards; Figure 9: Stakeholder Map; Figure 10: Anonymity Ladder*)
5. Functional Requirements
6. Non-Functional Requirements (*Figure 11: Where Your Data Lives*)
7. Future Iterations (*Figure 12: Roadmap*)
8. Success Metrics
9. Risks
10. Emails and Messaging
11. External Links
12. AI Usage
13. Notes

01 Goals

Purpose of this product

Echo helps people affected by a proposed federal rule stay informed, be heard, and get a response, without putting their name on the record. It turns their circumstances into comments the agency must answer. For this PRD, I scoped Echo to international students and the immigration rules that affect them; the same flow works for any federal docket. The product's name comes from our experience in the valley: when you speak to the valley, your words come back; in the meantime, no one who hears can tell who spoke.

What is Echo solving?

The people with the most at stake in a rule are the most afraid to speak up about it on the record.

For an international student, an immigration rule decides whether they can finish a degree, start a job, or stay in the country. They need to hear about it early, respond while it is still a proposal, and follow what happens next, all on a fixed clock. The D/S rule's comment window ran 32 days, from August 28 to September 29, 2025, the first month of the fall term. The final rule took effect about two months after DHS published it.

To take part, a student has to do what feels least safe. To be heard, you put your words on a public record. To hear back, you leave your name and email. A visa holder weighing a comment asks: Will my name appear? Can I take it back? Could this affect my status? Even an anonymous comment can identify its author through the details that make it persuasive. With that many unknowns, silence looks like the safest choice. Staying silent also means losing track of a rule that will shape the next two years.

Fear is the first barrier. Two more stand between a student and a comment the agency has to answer:

- **What counts.** Agencies must answer comments that bring specific evidence about the rule's text, and can set general objections aside (5 U.S.C. § 553; *Ohio v. EPA*, 2024). DHS did both on the D/S rule: it dismissed one group of equity concerns as lacking "specific data or research," and it dropped a proposed change after commenters pointed to specific text.
- **Turning experience into evidence.** No one has lived under the rule yet, but students already hold the facts that predict its effect: a graduation date that moved, a program longer than a fixed end date, OPT plans. Tying those facts to a provision takes help.

How is Echo better than existing solutions?

A student today can find the form on Regulations.gov, read a guide on effective comments, sign an advocacy template, or ask a chatbot to write a comment. Each covers one step and leaves the student alone with the hard parts:

- **Seeing the risk before posting.** None of these options shows a commenter what will be public, or which details in their own story could identify them. Echo shows the comment as the public will see it, flags those details, and keeps the student anonymous by default.
- **Making the comment count.** Guides explain what a strong comment looks like but leave students to read the rule alone. Templates and chatbots write for them, and agencies treat identical letters as one. Echo asks questions that tie the student's own facts to a provision, and never writes the comment.
- **Hearing back.** Regulations.gov offers no way to hear back without an email, and anonymous commenters cannot leave one. Echo confirms that the comment was posted and shows the agency's answers on a public log.

Assistance is what Echo adds. In the H&R Block FAFSA experiment, information alone had no measurable effect on filing, while hands-on assistance raised it from 39.9% to 55.6% among dependent students (Bettinger et al. 2012).

Vision of Echo

Anyone affected by a federal rule learns about it while the window is open, sees which provisions touch their life, submits evidence the agency must answer, chooses how visible to be, and later sees how the agency responded. Nobody along the way keeps their name.

02 User Personas

Five profiles cover the primary types of users. They describe behavior and situation and leave out demographics. Visa status appears only because the rule applies on that basis.

User Personas

Five profiles cover the primary types of users. They describe behavior and situation, not demographics. Each persona keeps its portrait and color through the journey map and stories.

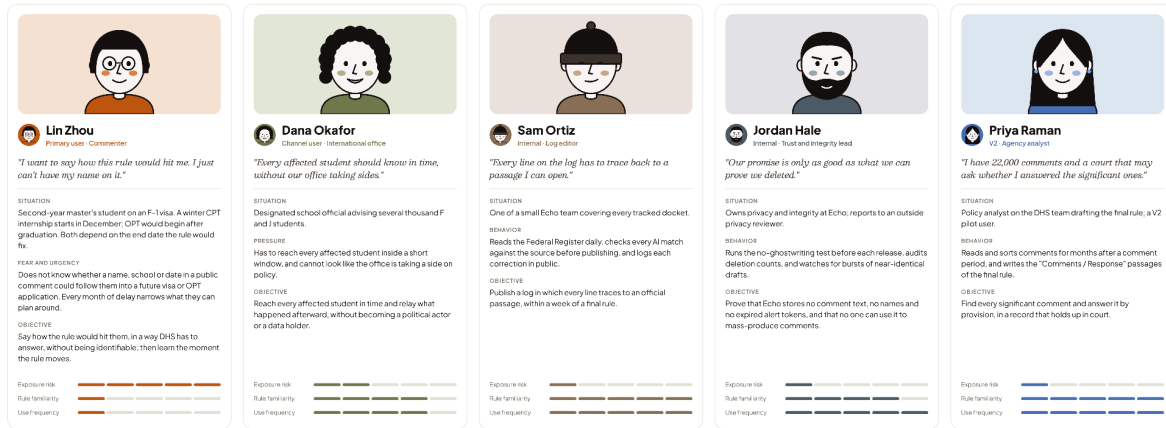


FIGURE 1 Persona board. Each persona has a portrait and a color that carry through the file. · [Open full size ↗](#)

Who uses Echo, and when

Role	Who	How often
Primary user	People affected by a proposed rule For launch that are international students	Triggered by rules, with high stakes each time
Channel user	University international student offices, student organizations	Whenever an agency proposes a relevant rule
Internal users	Echo log editors, trust and integrity lead	Every day
Agency user (V2)	Regulatory analysts who read comments	Daily for months after a comment period closes

Most common scenario: DHS proposes a rule affecting F-1 students. The international office emails every affected student a link to Echo. A student spends about 30 minutes: sees which provisions apply, adds the facts only they know, previews what will be public, stays anonymous, and submits on Regulations.gov. Their phone confirms the comment posted. Months later, informs them the final rule is out, and the public log shows how DHS answered on their provision.

Persona 1: Lin Zhou (primary user)

User type	Commenter
Situation	Second-year master's student on an F-1 visa. A winter CPT internship starts in December; OPT would begin after graduation in May 2027. Both depend on the end date the rule would fix.
Fear and urgency	Lin does not know whether a name, a school, or a graduation date in a public comment could follow them into a future visa or OPT application, and no one can promise it won't. Every month of delay narrows what Lin can still plan around.
Behavior	Hears about rules second-hand, in WeChat groups and on Reddit. Has never read the Federal Register. Writes in a second language. Checks immigration news often, because dates matter.
Objective	Say how the rule would hit them, in a way DHS has to answer, without being identifiable; then learn the moment the rule moves.

Persona 2: Dana Okafor (channel user)

User type	International student office
Situation	Designated school official advising several thousand F and J students.
Pressure	Has to get accurate notice to every affected student inside a short window, and cannot look like the office is taking a side on policy.
Behavior	Sends mass emails, runs workshops, writes the university's own comment, and avoids collecting student data the office does not need.
Objective	Reach every affected student in time and relay what happened afterward, without becoming a political actor or a data holder.

Persona 3: Sam Ortiz (Echo log editor, internal)

Situation	One of a small Echo team covering every tracked docket.
Behavior	Reads the Federal Register daily, checks every AI match against the source before publishing, and logs each correction in public.
Objective	Publish a public log in which every line traces to an official passage, within a week of a final rule.

Persona 4: Jordan Hale (Echo trust and integrity lead, internal)

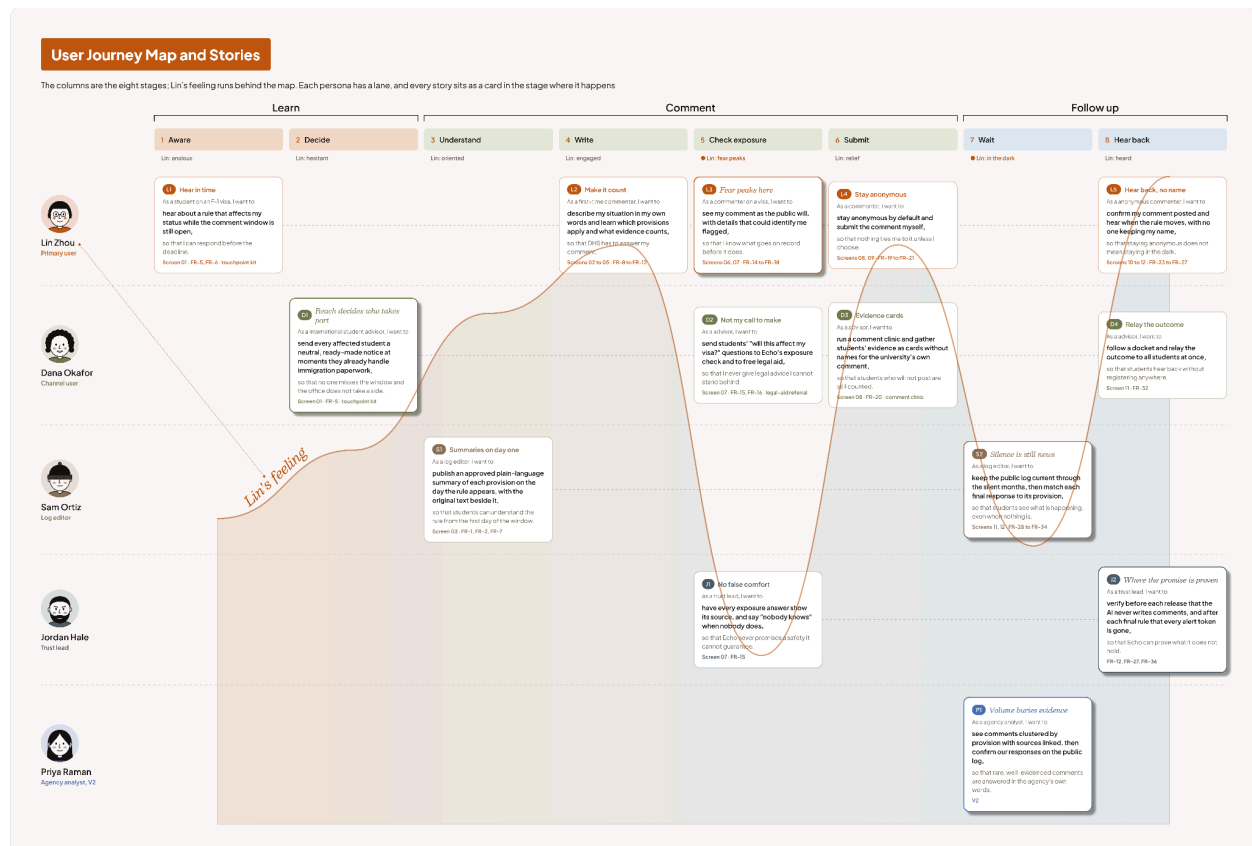
Situation	Owns privacy and integrity at Echo; reports to an outside privacy reviewer.
Behavior	Runs the no-ghostwriting test before each release, audits deletion counts, and watches for bursts of near-identical drafts.
Objective	Prove that Echo stores no comment text, no names, and no expired alert tokens, and that no one can use Echo to mass-produce comments.

Persona 5: Priya Raman (agency analyst, in V2)

Situation	Policy analyst on the DHS team drafting the final rule; a V2 pilot user.
Behavior	Reads and sorts comments for months after a comment period, and writes the "Comments / Response" passages of the final rule.
Objective	Find every significant comment among tens of thousands and answer it by provision, in a record that holds up in court.

03 User Stories

The stories spread across eight stages: aware, decide, understand, write, check exposure, submit, wait, hear back. I group stories by persona; the label shows the stage, and the pointer shows the screen and requirement it leads to. Every stage has at least one story. Check exposure(fear of the record peaks)has three cards.



- **L4** (Submit) As a commenter, I want to stay anonymous by default and submit the comment myself, so that nothing ties me to it unless I choose.
- **L5** (Hear back) As an anonymous commenter, I want to confirm my comment posted and hear when the rule moves, with no one keeping my name, so that staying anonymous does not mean staying in the dark.

Dana Okafor, channel user

- **D1** (Decide) As an international student advisor, I want to send every affected student a neutral, ready-made notice at moments they already handle immigration paperwork, so that no one misses the window and the office does not take a side.
- **D2** (Check exposure) As an advisor, I want to send students' "will this affect my visa?" questions to Echo's exposure check and to free legal aid, so that I never give legal advice I cannot stand behind.
- **D3** (Submit) As an advisor, I want to run a comment clinic and gather students' evidence as cards for the university's own comment, so that students who will not post are still counted.
- **D4** (Hear back) As an advisor, I want to follow a docket and relay the outcome to all students at once, so that students hear back without registering anywhere.

Sam Ortiz, log editor

- **S1** (Understand) As a log editor, I want to publish an approved plain-language summary of each provision on the day the rule appears, with the original text beside it, so that students can understand the rule from the first day of the window.
- **S2** (Wait) As a log editor, I want to keep the public log current through the silent months, then match each final response to its provision, so that students see what is happening, even when nothing is.

Jordan Hale, trust and integrity lead

- **J1** (Check exposure) As the trust lead, I want every exposure answer to show its source, so that Echo never promises a safety it cannot guarantee.
- **J2** (Hear back) As the trust lead, I want to verify before each release that the AI never writes comments, and after each final rule that every alert token is gone.

Priya Raman, agency analyst (V2)

- **P1** (Wait) As an agency analyst, I want to see comments clustered by provision with sources linked, then confirm our responses on the public log.

04 Prototypes

The prototype includes 15 screens(separated into 5 boards): 12 of them follow Lin from the office's notice to DHS's answer, and 3 of them show the public log on the web and the tools behind it. On each chapter board(Figures 4 to 8), numbered notes link a design choice to its evidence and requirement. Comment counts and check dates are illustrative; rule text, dates, and quotations come from the Federal Register.

MVP scope

V1 works without any agency adopting Echo. It has nine features: provision mapping and substance check (screens 02 to 05), exposure preview (06, 07), the exposure ladder (08), the hand-off (09), the posted check, follow-up ladder, proof for later, and record lifespan (10), and the public response log (11 to 13). An editor queue and a trust dashboard run behind the log (14, 15). The core screens are 06, 08, 10, and 11: they show what goes public, let the student choose how to be heard, and let them hear back without a name.

Supporting services

Echo is being envisioned as a full service, and the app is one part of it.

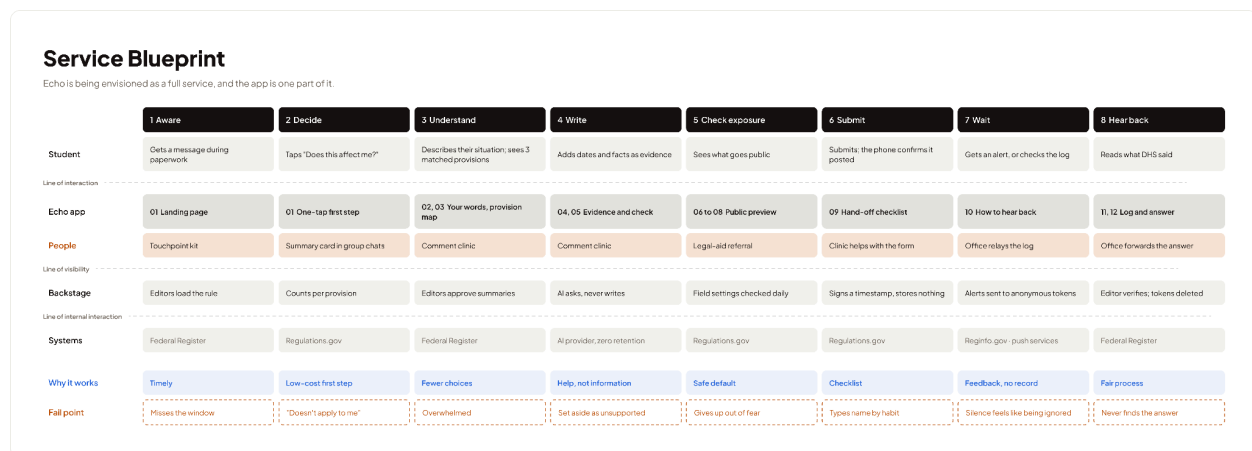


FIGURE 3 Service blueprint · [Open full size ↗](#)

- **Touchpoints:** email, orientation slide, and a one-page handout for moments when students already handle immigration paperwork (OPT, I-20 signatures, I-9 onboarding).
- **Verified summary cards:** shareable rule summaries for group chats and forums, with an accuracy prompt before sharing.

- **Comment clinics:** during a comment period, international offices host sessions. Students write their own comments in Echo while staff or legal-aid volunteers answer questions.
- **Legal-aid referral:** every "nobody knows" answer links to free regional legal aid.
- **Log subscriptions:** offices follow a docket's log and relay updates to their students.

Chapter 01 · Reaching students in time

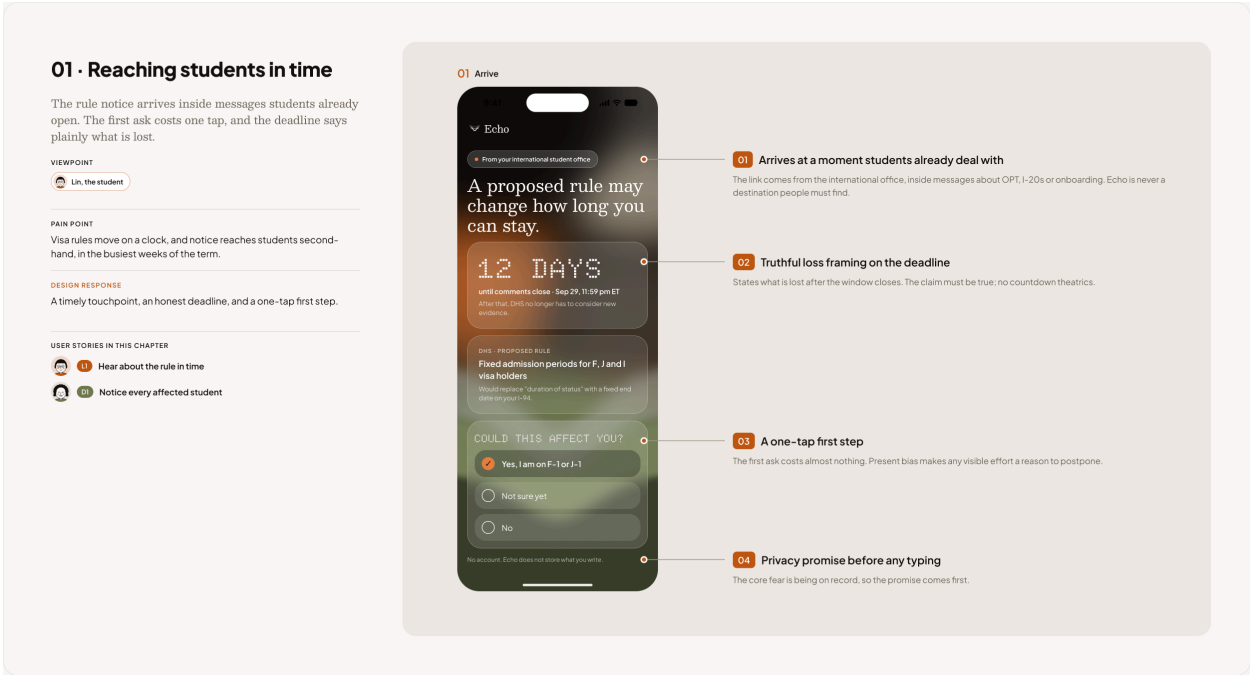


FIGURE 4 Chapter 01 board · [Open full size ↗](#)

Pain point: visa rules move on a clock, and notice reaches students second-hand, in the busiest weeks of the term. **Design response:** the notice arrives inside messages students already open, and the first step costs one tap. **Stories:** L1, D1. **Viewpoint:** Lin, the student.

Screen	Description	Elements
01 Arrive	The link comes from the international office. The screen says what the rule would change, how long is left, and what the student loses after the deadline, then asks one question.	The office as sender; a one-line summary of the rule; days left and the closing time; what is lost after the window ("DHS no longer has to consider new evidence"); a one-tap question, "Could this affect you?"; the privacy promise before any typing: no account, nothing stored

Chapter 02 · Making a comment count

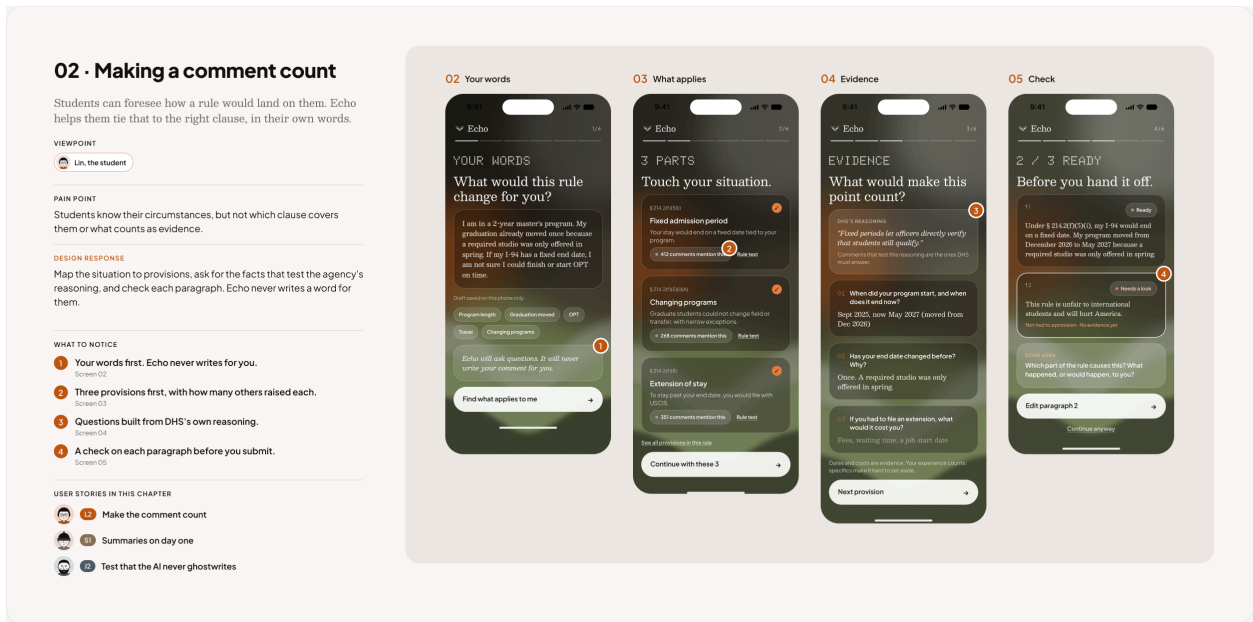


FIGURE 5 Chapter 02 board · [Open full size ↗](#)

Pain point: students know their circumstances, but not which clause covers them or what counts as evidence. **Design response:** Echo maps the situation to provisions, asks for the facts that test the agency's reasoning, and checks each paragraph. It never writes a word for the student.

Stories: L2, S1, J2. **Viewpoint:** Lin, the student.

Screen	Description	Elements
02 Your words	Lin writes what the rule would change for them. Echo will ask questions later; it never drafts text.	An open text box; topic chips (program length, graduation moved, OPT, travel, changing programs); "Draft saved on this phone only"; the no-ghostwriting promise; "Find what applies to me"
03 What applies	Echo matches the description to the rule and shows the three provisions that apply first.	Each provision with its section number, a plain-language summary approved by a log editor, the number of comments that mention it, and a link to the rule text; "See all provisions"
04 Evidence	For each provision, Echo quotes DHS's stated reasoning and asks the questions that would test it.	DHS's reasoning in quotation marks; a line explaining that comments testing it are the ones DHS must answer; three questions about dates, changes, and costs, answered in Lin's own words
05 Check	Before the hand-off, Echo checks each paragraph for a provision and for evidence.	A status per paragraph (ready / needs a look) with the reason; Echo's questions for weak paragraphs; "Edit" or "Continue anyway", so Lin always decides

Chapter 03 · Seeing what goes public, then choosing (core)

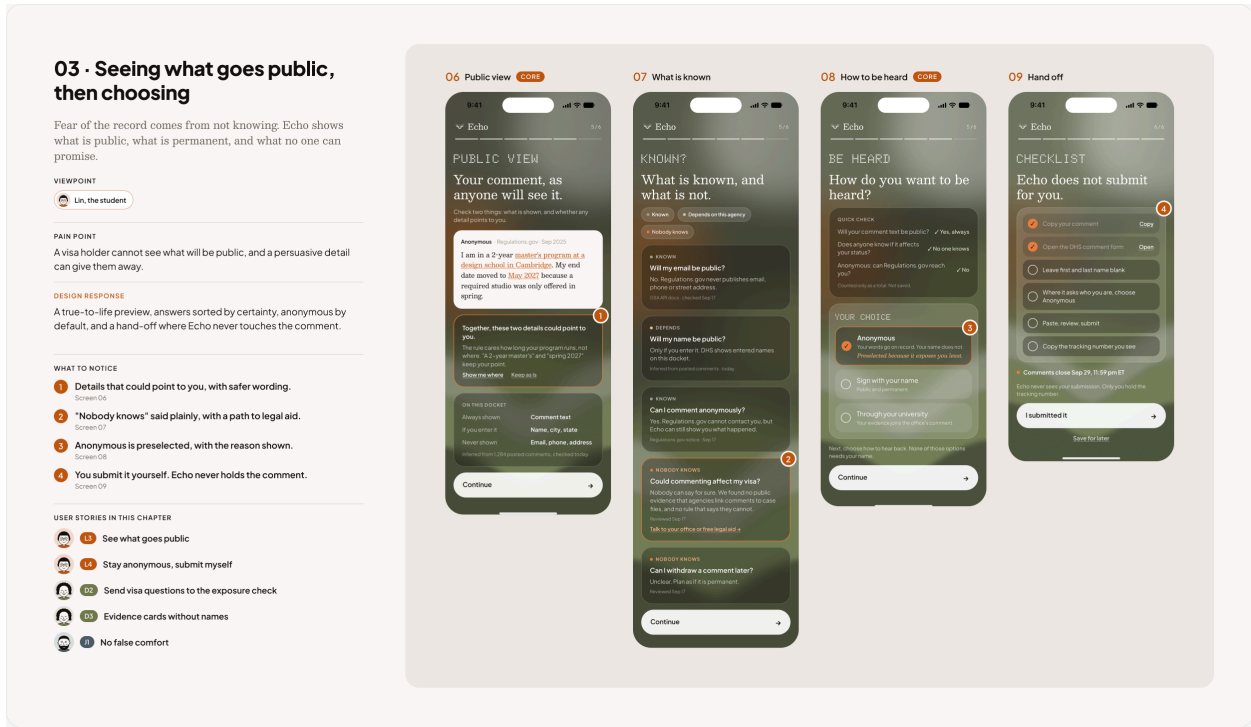


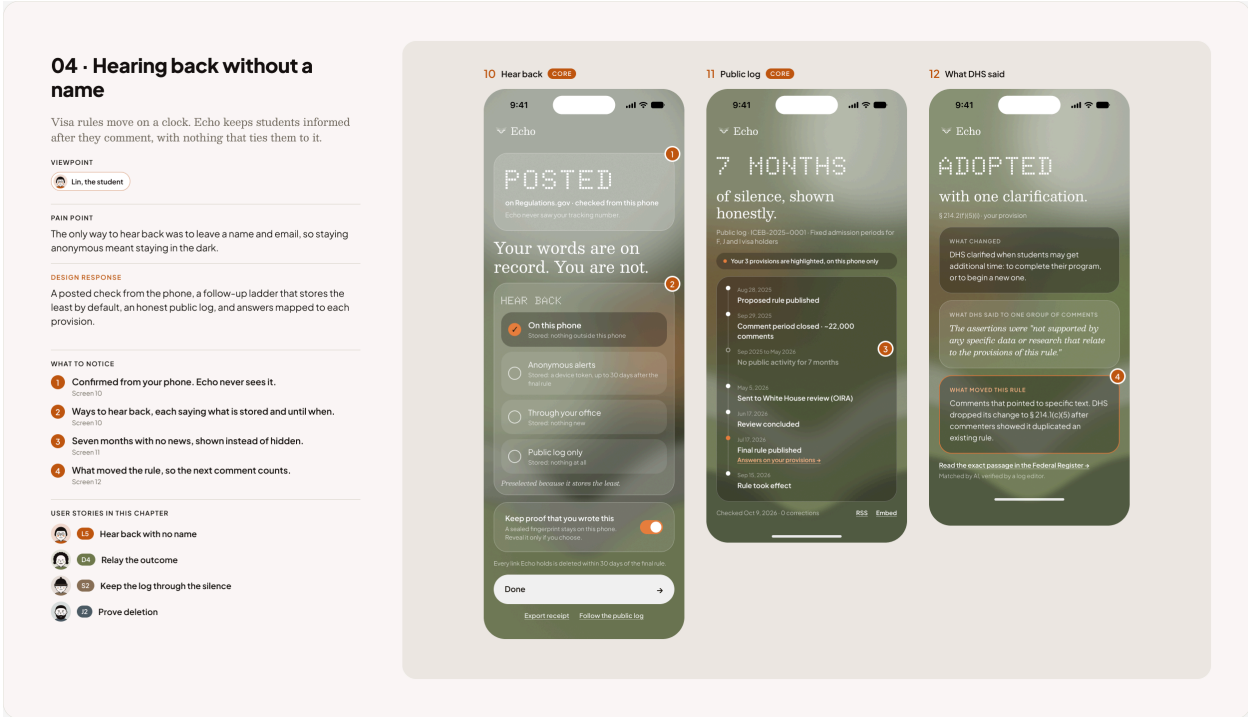
FIGURE 6 Chapter 03 board · [Open full size ↗](#)

Pain point: a visa holder cannot see what will be public, and the detail that persuades can also give them away. **Design response:** a true-to-life preview, answers sorted by certainty, anonymous by default, and a hand-off where Echo never touches the comment. **Stories:** L3, L4, D2, D3, J1. **Viewpoint:** Lin, the student.

Screen	Description	Elements
06 Public view CORE	The comment as it will appear on Regulations.gov, with details that together could point to the author.	The public view, labeled Anonymous; a flagged pair of details, why they matter, and wording that keeps the point; "Show me where" or "Keep as is"; what this docket always shows, shows if entered and never shows, inferred from posted comments with a check date
07 What is known	Answers to the questions students ask before commenting, sorted by how certain each answer is.	Filters for known / depends on this agency/nobody knows; a source and check date on every answer; "Nobody knows" said plainly, with a link to the office and free legal aid; the word "safe" never appears
08 How to be heard CORE	A three-question recap, then the exposure ladder.	Anonymous preselected, with the reason; sign with your name; through your university; a note that the next choice needs no name either

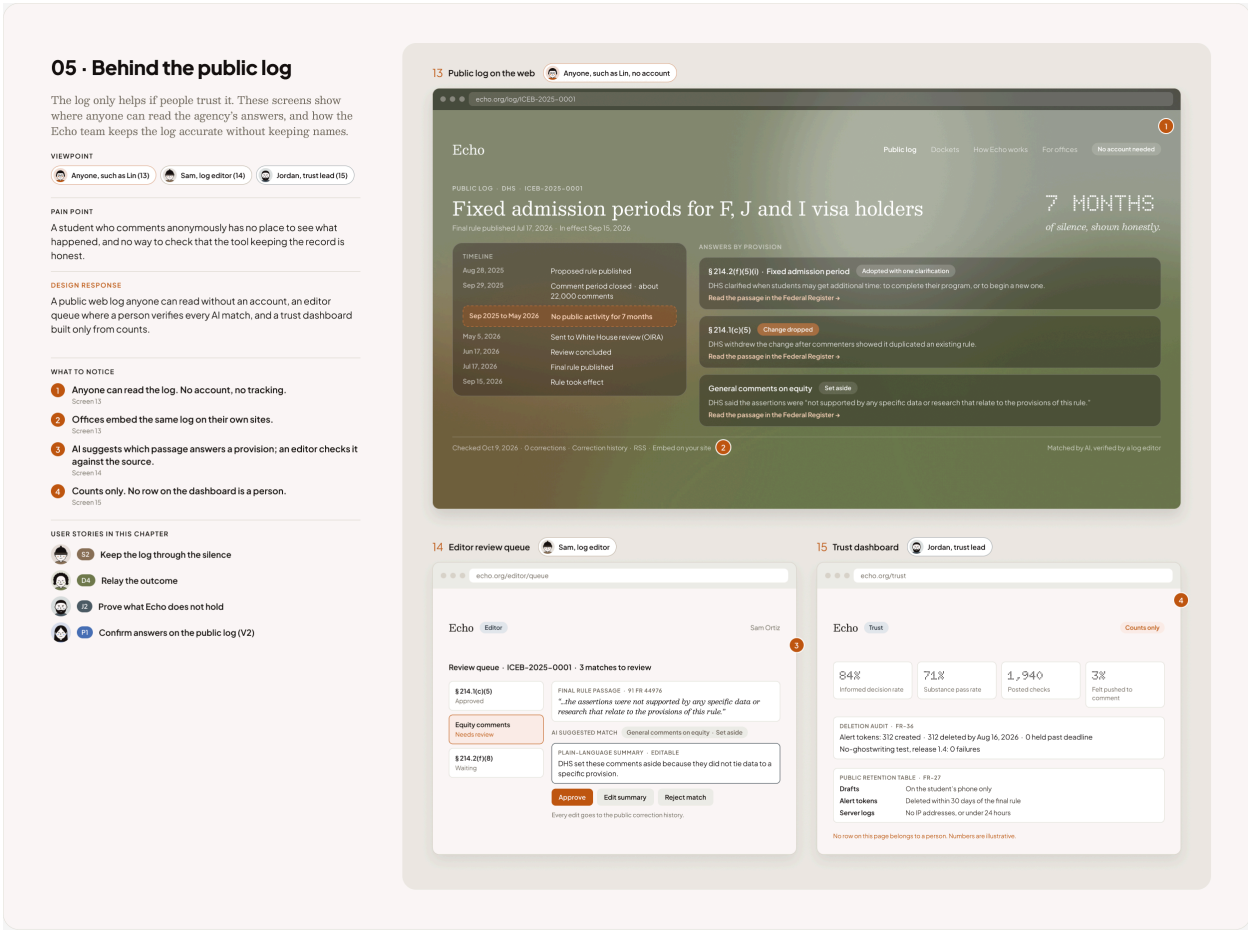
Screen	Description	Elements
09 Hand off	A checklist for submitting on Regulations.gov. Lin submits; Echo never sees the submission.	Copy the comment; open the DHS form; leave the name blank and choose Anonymous; paste, review, submit; copy the tracking number; the deadline; "I submitted it" or "Save for later"

Chapter 04 · Hearing back without a name(core)



Screen	Description	Elements
12 What DHS said	The outcome on Lin's provision in plain language, and what moved the rule.	The outcome (adopted with one clarification); what changed; DHS's answer to one group of comments, quoted; what moved the rule (comments that cited specific text, which led DHS to drop its change to § 214.1(c)(5)); a link to the Federal Register passage; "Matched by AI, verified by a log editor"

Chapter 05 · Behind the public log



Pain point: a student who comments anonymously has no place to see what happened, and no way to check that the tool keeping the record is honest. **Design response:** a public web log anyone can read without an account, an editor queue where a person verifies every AI match, and a trust dashboard built only from counts. The public page keeps the app's frosted-glass look; the two back-office tools use a plain working style. **Stories:** S2, D4, J2, P1. **Viewpoint:** anyone, such as Lin (13); Sam, the log editor (14); Jordan, the trust lead (15).

Screen	Description	Elements
13 Public log on the web	The same log as screens 11 and 12, on an open web page anyone can read without an account. Offices embed it on their own sites.	The docket timeline, with the seven months of silence drawn as a period; answers by provision, each with its status and a link to the Federal Register passage; the last check date, correction history, RSS and an embed code; "Matched by AI, verified by a log editor"
14 Editor review queue	After DHS publishes the final rule, AI suggests which passage answers which provision. A log editor checks each suggestion against DHS's own text before it appears on the public log.	A queue of matches with their status; the final rule passage beside the suggested provision; an editable plain-language summary; Approve, Edit summary and Reject match; a note that every edit goes to the public correction history
15 Trust dashboard	What Echo holds and what it measured, shown only as counts.	The core metrics as totals; the deletion audit for alert tokens (FR-36); the no-ghostwriting test result; the public retention table (FR-27); a line saying no row belongs to a person. Numbers on the screen are illustrative

Stakeholder map

Echo involves more parties than the student and the agency. The map places each one by its stake in the rule and its say over it. The people who decide (OIRA, DHS, the courts) sit top left; the student sits bottom right, beside the silent stakeholders who never comment. The only line onto the public record runs from the student's own comment to DHS, and responses come back through Echo's public log. Echo, its editors, and its vendors (the AI provider, push services) all sit low on say and hold no names.

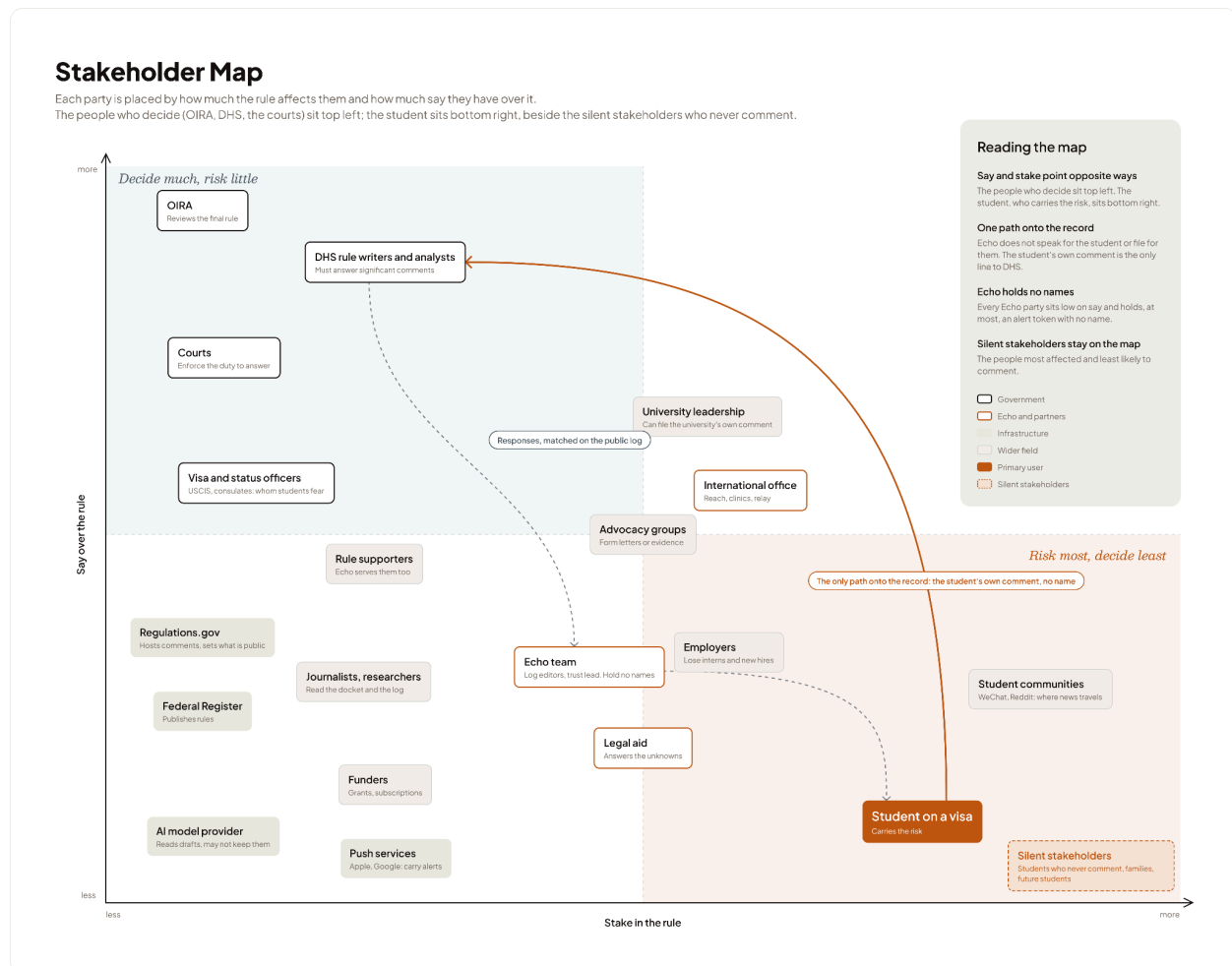


FIGURE 9 Stakeholder map · [Open full size ↗](#)

Anonymity ladder

A student makes two choices in Echo: how to be heard (screen 08) and how to hear back (screen 10). Echo treats both as the center of its privacy promise, so the ladder lays every option out against one question: who could link this comment back to you? The rungs run from most

traceable to least. Signing a comment puts a name on the public record; going through the university means the office knows; anonymous alerts mean Echo holds a device token without a name. Echo sets each default on the lowest rung that still lets the comment count and the student hear back, and it states the reason beside the default. The ladder makes visible what commenting usually hides: what each option exposes, to whom, and what the student gets in return.

Anonymity Ladder

Choose anonymous as default. Read every option the same way: who could link the comment back to you?

☒ Can link it to you

☒ Only in part (see note)

☐ Cannot

How you are heard

Screen 08

OPTION	THE PUBLIC AND DHS	YOUR SCHOOL	ECHO	WHAT YOU GET
Sign with your name Words and name, public and permanent.	☒	☒	☐	The most weight: a named, first-hand account.
Anonymous Default Default: your words count, your name stays off.	☒ Only through details in the text	☐	☐	Your evidence counts in full. Screen 06 flags the details that could identify you.
Through your university You hand your evidence to the office.	☐	☒ The office knows, as it does today	☐	Counted inside the university's comment. Nothing public is yours.

How you hear back

Screen 10

OPTION	THE PUBLIC AND DHS	YOUR SCHOOL	ECHO	HOW YOU FIND OUT
Through your office The office relays updates.	☐	☒ Already has your email	☐	The office tells every student at once.
Anonymous alerts A push when the rule moves.	☐	☐	☒ A device token with no name, deleted after the final rule	Your phone gets an alert when the final rule is out.
On this phone Default Default: you hear back and nobody else holds anything.	☐	☐	☐	Your receipt and a reminder stay on your phone. The reminder tells you when to check the log.
Public log only You check the log yourself.	☐	☐	☐	Nothing is stored, not even on your phone. You visit the public log when you choose.

Proof for later
Works with any option. A sealed fingerprint stays on your phone; Echo stamps the time and keeps nothing.

Every record ends
Any link Echo holds is deleted within 30 days of the final rule, or after 24 months at most.

FIGURE 10 Anonymity ladder · [Open full size ↗](#)

05 Functional Requirements

We group requirements by the part of the service they support and number them in that order. "Must" blocks launch; "Should" can follow soon after. All are V1. Each story in the User Stories section points to the requirements it needs.

Docket setup (internal)

ID	Requirement	Priority
FR-1	Import a proposed rule from the Federal Register API and split it into provisions by CFR section	Must
FR-2	Plain-language summary per provision, approved by a log editor, always shown next to the original text	Must
FR-3	Record the agency's stated reasoning and assumptions per provision; evidence prompts are built from these	Must
FR-4	V1 covers dockets selected by editors (immigration rules affecting international students), sorted by days left	Must

Arrival and channels

ID	Requirement	Priority
FR-5	Office links: an international office gets a docket link and the touchpoint kit. The link names the office as sender and carries no identifier for any student	Must
FR-6	Docket landing: the rule in one line, days left with the closing time, what changes once the window closes, a one-tap "Could this affect you?" question, and the privacy promise before any input	Must
FR-7	Summary cards: a shareable card per provision that links to its source, with a prompt to check accuracy before sharing	Should

Commenter flow

ID	Requirement	Priority
FR-8	Situation intake in free text. No account, no name, no email. The draft stays on the device	Must
FR-9	Provision mapping with a one-line reason per match and the number of posted comments that mention each provision; the user keeps or removes each; the full list is always available	Must
FR-10	Evidence prompts per provision, built from the agency's stated reasoning (FR-3): dates, durations, costs, documents	Must

ID	Requirement	Priority
FR-11	Substance check per paragraph: tied to a provision, has evidence, tests the agency's reasoning, in scope. Feedback comes as questions, and the user can always continue	Must
FR-12	No ghostwriting: the AI may only ask, label, and explain. The interface offers no way to insert its output into the draft, and the trust lead tests this before every release	Must
FR-13	Form-letter warning when a draft matches a known campaign template	Should

Exposure

ID	Requirement	Priority
FR-14	Public view of the comment as it will appear on this docket, inferred from posted comments; if unknown, assume everything is public	Must
FR-15	Answers sorted into known/depends on this agency/nobody knows, each with source and last-checked date. Echo never says "safe"	Must
FR-16	Referral: every "nobody knows" answer links to free regional legal aid and, when the student arrived through an office link, to that office	Must
FR-17	Flag identifying details alone or in combination; block hand-off while the text contains a SEVIS ID, A-number, passport or I-94 number. The check for these numbers runs on the device, before any text reaches the AI provider	Must
FR-18	For each flagged detail, explain what the provision needs and what it does not; the user makes every edit	Must
FR-19	Decision check: three questions before the exposure ladder (is the text public, does anyone know the effect on status, can the agency reach an anonymous commenter). Echo records only aggregate counts, for the informed decision rate	Must
FR-20	Exposure ladder, anonymous by default, with the reason shown: anonymous; sign with your name; or export an evidence card with no name for the university. The card goes from the device to the office; Echo never stores it	Must

Submission and hearing back

ID	Requirement	Priority
FR-21	Hand-off, not proxy: Echo opens the Regulations.gov form, offers a copy button and a checklist of fields to leave blank. Echo never submits	Must
FR-22	Device-only receipt: docket, provisions and tracking number saved in the browser on that device, with file export and a one-tap "Delete everything on this phone"	Must
FR-23	Posted check: the device queries Regulations.gov itself with the tracking number to confirm the comment is posted. The request never passes through Echo. To verify	Must

ID	Requirement	Priority
FR-24	Follow-up ladder: on this phone (default), public log only, through your office, anonymous alerts. Each option states what is stored, where, and until when	Must
FR-25	Anonymous alerts (opt-in): web push to a device token stored with the docket ID only. Alerts carry no rule content on the lock screen ("A rule you follow has an update"). On iPhone, this requires adding Echo to the Home Screen to verify	Must
FR-26	Proof for later (opt-in): the device creates a sealed fingerprint of the comment text plus a secret only the user holds; Echo signs the fingerprint with a timestamp and returns it without storing anything. The user can later reveal the secret to prove authorship	Must
FR-27	Record lifespan: Echo deletes every server-side link between a device and a docket (alert tokens) 30 days after the final rule is published, or after 24 months, whichever comes first. A public retention table lists what Echo holds and for how long	Must

Public Response Log

ID	Requirement	Priority
FR-28	One public page per docket, no account needed, with a timeline: proposed rule, comment period closed, comment count, OIRA review, final rule, effective date	Must
FR-29	Silence is shown: "No public activity since [date]," with the last-checked date	Must
FR-30	AI matches each response in the final rule to a provision; an editor verifies every match; each entry links to the exact passage	Must
FR-31	A device with a receipt sees its provisions highlighted; the match happens in the browser	Should
FR-32	Office subscriptions: RSS feed, email digest, and embeddable widget for offices and student groups. Required because "through your office" is a follow-up option	Must
FR-33	Public correction history for every edited entry	Must

Scheduled jobs

ID	Requirement	Priority
FR-34	Daily checks of the Federal Register, Regulations. gov, v, and Reginfo.gov; changes create draft log entries and trigger alerts after review	Must
FR-35	Daily refresh of each docket's displayed-field settings and "last checked" dates	Must
FR-36	Daily deletion job for expired alert tokens, with an audit log of counts, not contents	Must

06 Non-Functional Requirements

Privacy as the core promise

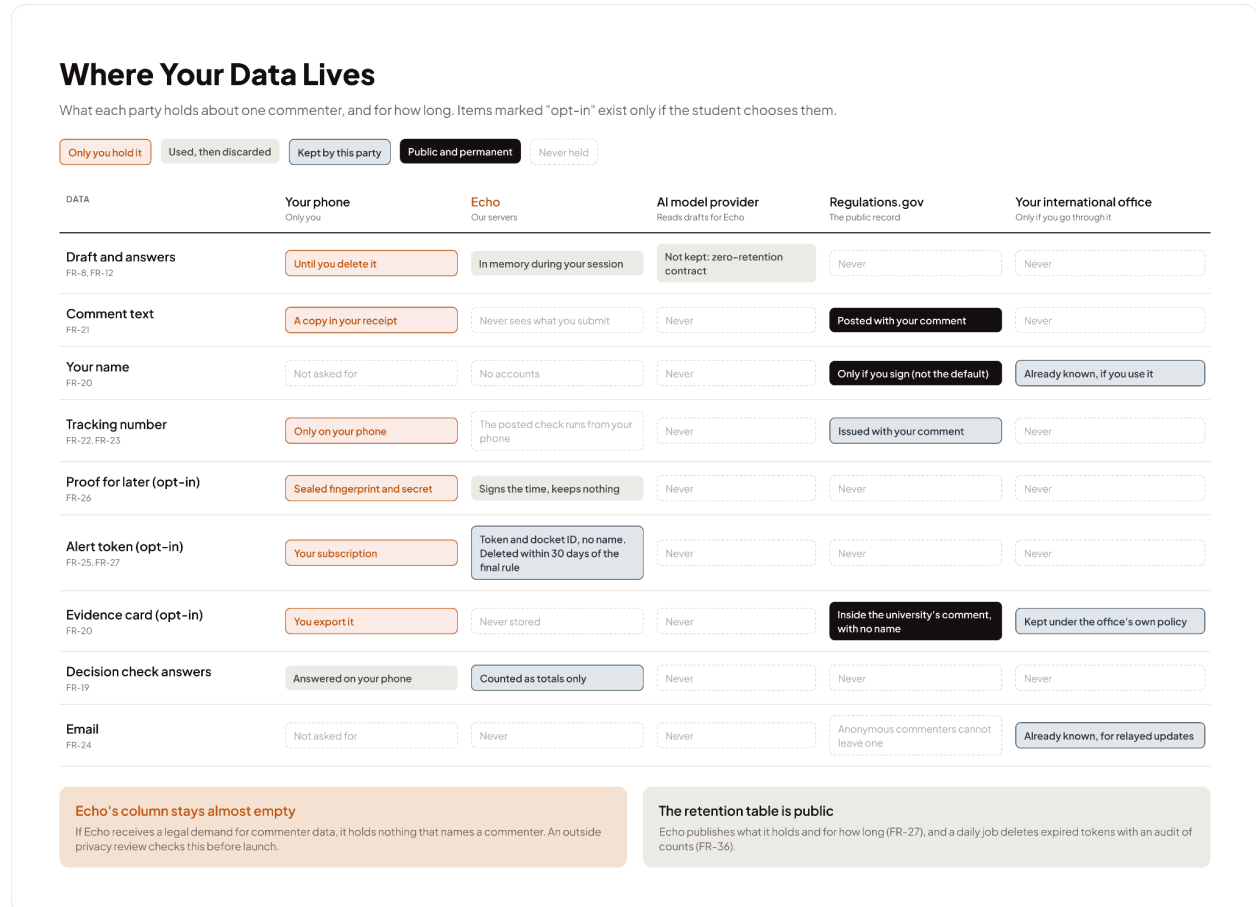


FIGURE 11 Where Your Data Lives. • [Open full size ↗](#)

- Echo's servers never store names, emails, comments, evidence cards, or tracking numbers.
- The only thing Echo may keep about a person is an alert token with no name, and only if they ask for alerts. Echo deletes it on a set date (FR-27).
- Echo never saves drafts on its servers.
- Server logs leave out IP addresses, or delete them within 24 hours.
- If anyone demands commenter data, Echo has nothing to hand over. An outside privacy review checks this before launch.

Accuracy and neutrality

- A person approves every summary and log entry, and the original text is always one tap away.

- Echo publishes how its checks work.
- Echo takes no side on any rule and helps people on every side.

AI quality

- Before each release, Echo runs the same tests: the AI must never write into a draft (FR-12), and the ID check must catch every SEVIS, A-number, passport, and I-94 number (FR-17).
- Every AI match shows a label saying an editor checked it.

Reliability

- In the last three days before a deadline, students can always copy their comment and open the form, even if the AI is down.
- Each log entry shows when it was last checked. If it fails, the log says the update is late.

Accessibility and language

- Meets WCAG 2.2 AA. Color is never the only signal.
- Explanations use plain words at about an eighth-grade level, tested with readers whose first language is not English.
- Mobile first.

Platforms and performance

- A web app that works on any phone and can be added to the Home Screen for alerts. It runs in current Chrome, Safari, Firefox, and Edge.
- The paragraph check answers in under 5 seconds.
- Handles the rush before a deadline (target: 10,000 people at once, not yet tested).

Integrations

- Data from the Federal Register, Regulations.gov, and Reginfo.gov; a push notification service; an AI provider that keeps nothing.

Legal

- Echo gives information, not legal advice. Every "nobody knows" answer links to free legal aid and, where relevant, the student's international office (FR-16). Lawyers review all exposure content before launch.

07 Future Iterations

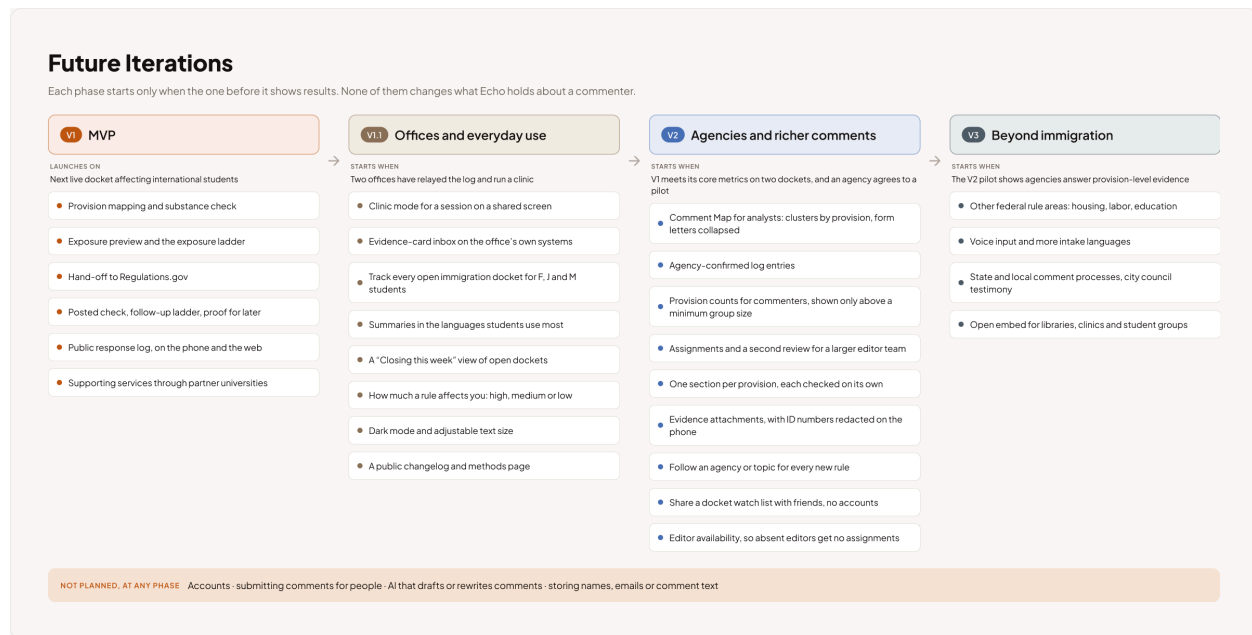


FIGURE 12 Future iterations · [Open full size ↗](#)

Beyond the MVP, the roadmap adds these features, each tied to the phase in which it starts:

- **V1.1** Clinic mode for a comment session on a shared screen.
- **V1.1** An evidence-card inbox that offices run on their own systems.
- **V1.1** Tracking of every open immigration docket for F, J and M students.
- **V1.1** Summaries in the languages students use most.
- **V1.1** A "Closing this week" view of open dockets.
- **V1.1** A rating of how much a rule affects you: high, medium, or low.
- **V1.1** Dark mode and adjustable text size.
- **V1.1** A public changelog and methods page.
- **V2** A Comment Map for agency analysts that clusters comments by provision and collapses form letters.
- **V2** Agency-confirmed entries on the public log.
- **V2** Provision counts for commenters, shown only above a minimum group size.
- **V2** Assignments and a second review for a larger editor team.
- **V2** One section per provision, each checked on its own.
- **V2** Evidence attachments, with ID numbers redacted on the phone before upload.

- **V2** Follow an agency or topic, and hear about every new rule it proposes.
- **V2** Share a docket watch list with friends, with no accounts.
- **V2** Editor availability, so editors who are away get no assignments.
- **V3** Other federal rule areas, such as housing, labor, and education.
- **V3** Voice input and more intake languages.
- **V3** State and local comment processes, including city council testimony.
- **V3** An open embed for libraries, clinics, and student groups.

08 Success Metrics

Echo does not measure success by the number of comments: a student who sees the risks and decides not to comment is a good outcome. Echo also cannot link a comment to a person, so every metric below is a count with no identifier; the phone reports only that a step happened. Targets are hypotheses to test in Next Steps 2 and 3.

North Star: the informed decision rate. It measures whether a student understood what goes public before choosing how, or whether, to be heard. The other metrics support it.

Type	Metric	Definition	Measured by	Target
North Star	Informed decision rate	Share of users who give the right answers to the three decision-check questions before choosing how to be heard	Totals from the decision check (FR-19)	80%
Core	Substance pass rate	Share of hand-offs in which every paragraph is tied to a provision and contains evidence	Count from the substance check at hand-off (FR-11)	70%
Core	Heard back without a name	Share of hand-offs followed by a successful posted check	Count sent by the phone after the posted check (FR-23)	Baseline in V1
Core	Log timeliness	Days from the final rule to a verified log entry for every provision	Log timestamps (FR-30)	7 days or fewer
Supporting	Channel reach	Arrivals through office links, and offices that relay log updates	Office ID on the link, never a student ID (FR-5, FR-32)	Two offices in V1
Guardrail	Privacy failures: ID numbers in handed-off text, alert tokens held past their deletion date, or commenter data stored or exposed		ID check (FR-17), deletion audit (FR-36), outside privacy review	0
Guardrail	Log entries corrected for a wrong match		Correction history (FR-33)	Under 2%
Guardrail	Users who say they felt pushed to comment		One optional question at the end, counted as totals	Any rise triggers a review

09 Risks

Likelihood (L) and impact (I) are our own estimates: high, medium, or low. Cells are shaded by level: deep orange for high, pale orange for medium, green for low. Owners are the internal roles from the personas: the trust lead (Jordan), the log editors (Sam), and the product lead. Privacy risks come first, since Echo's value rests on its privacy promise.

Privacy and safety

#	Risk	L	I	Mitigation	Owner
R1	False reassurance. A user reads the preview as a promise of safety, or Echo gets a docket's field settings wrong	M	H	Assume everything is public when unsure; never say "safe"; a source and date on every answer; legal review (FR-14, FR-15)	Trust lead
R2	Re-identification from outside Echo. A student tells the same story on Reddit or in a group chat, and the two can be matched	M	H	The public view explains that matching is possible; "nobody knows" stays honest about limits; summary cards carry no personal story	Trust lead
R3	The school knows. The office knows which students chose "through your office" or handed over an evidence card, and someone could ask the office for its records.	M	M	The ladder marks the office as "kept by this party"; cards carry no name; the touchpoint kit tells offices to keep only what they use; anonymous stays the default (FR-20, FR-24)	Product lead
R4	Office links become trackers. An office adds a per-student code to the link	L	H	Echo generates the links and drops any parameter it did not create (FR-5)	Trust lead
R5	Alert tokens become a trace. Push services (Apple, Google) see device tokens, and a token tied to an immigration docket is sensitive.	M	M	Opt-in only; no rule content on the lock screen; deletion on schedule; "on this phone" is the default (FR-25, FR-27)	Trust lead
R6	The AI provider keeps or leaks drafts	L	H	Zero-retention contract; drafts processed in memory; identifier numbers caught on the device before any text is sent (FR-17)	Trust lead
R7	A shared or seized phone. Everything Echo keeps lives on the phone, so the phone becomes the record	M	M	One-tap delete; nothing on the lock screen; receipts and proof are optional exports (FR-22)	Product lead
R8	Proof for later is misunderstood or lost. Users lose the secret, or think the fingerprint identifies them.	M	L	A plain explanation at opt-in; the secret exports with the receipt; Echo says up front that it cannot recover a lost secret (FR-26)	Product lead

Integrity of the comment record

#	Risk	L	I	Mitigation	Owner
R9	Mass comments that look substantive , with invented details	M	H	No ghostwriting; Echo never submits; rate limits. Some risk remains because Echo keeps no identities (FR-12, FR-21)	Trust lead
R10	Echo trains people to sound like lawyers , repeating the gatekeeping it wants to remove	M	M	Lived experience counts as evidence; the check asks for its specifics and never labels it invalid (FR-11)	Product lead
R11	Echo pushes people into exposure . Prompts and deadlines make students feel they should comment.	L	H	Not commenting counts as success; anonymous by default; the "felt pushed" guardrail metric	Product lead
R12	Campaign organizers push template letters	M	M	Form-letter warning; invite evidence drives instead (FR-13)	Log editors
R13	AI mapping misses a provision	M	M	The full list is always available; editors test mapping on each docket (FR-9)	Log editors
R14	Log errors	M	M	An editor verifies every match; source links; public corrections (FR-30, FR-33)	Log editors

Legal and trust

#	Risk	L	I	Mitigation	Owner
R15	Unauthorized practice of law	M	H	Information, not advice; referral to legal aid on every "nobody knows" (FR-16); legal review before launch	Product lead
R16	Seen as partisan , so universities hesitate to share	M	H	Strict neutrality; Echo serves supporters too; nonpartisan launch partners	Product lead

Adoption and operations

#	Risk	L	I	Mitigation	Owner
R17	Low individual frequency . A student needs Echo once or twice a year	H	M	Offices provide reach; the log and alerts give reasons to return; more rule areas in V3	Product lead
R18	Uneven reach across schools	H	M	Student groups and community partners; summary cards; more languages in V3	Product lead
R19	Deadline spikes and outages	M	H	The hand-off works even if the AI is down; load target tested before each	Product lead

#	Risk	L	I	Mitigation	Owner
				window (NFR Reliability)	
R20	Government data sources change or break	M	M	Monitoring on every daily job; a failed check shows as a delay, not silence; manual fallback (FR-34)	Log editors
R21	No business model yet	H	M	Grants for V1; university subscriptions; agency contracts in V2	Product lead
R22	Agencies never adopt V2	M	L	V1 stands on its own	Product lead

10 Emails & Messaging

Echo never needs a commenter's email address or phone number. International offices email their students; the student's phone sets its own reminders. Every message follows four rules:

1. **No one is singled out.** Offices send the same message and the same link to every affected student. Links carry the office's ID, never a student's (FR-5).
2. **No tracking.** No open pixels, no per-recipient links, no third-party link shorteners.
3. **Nothing sensitive on the lock screen.** Alerts and reminders never name the rule, the agency, or a visa type.
4. **Neutral wording.** Messages say what the rule does and when the window closes. They never urge anyone to comment or say how to feel about the rule.

Message	From → to	Purpose	When	Story, FR
Rule notice	International office → all affected students	Say a rule may affect them, with the Echo link and the deadline	Within days of a proposed rule; again at OPT, I-20 and I-9 moments	D1, L1 · FR-5
Summary card	Office or student group → group chats	One accurate screen per provision, with an accuracy prompt	Comment window	S1 · FR-7
Clinic invitation	Office → all affected students	Invite to a 45-minute comment clinic	Middle of the comment window	D3
Deadline reminder	The phone → its owner	Remind a student who chose "Save for later"	48 hours before the window closes	L4 · FR-22
Posted confirmation	Echo, on the phone → the commenter	Confirm the comment is live on Regulations.gov	Each time the student checks	L5 · FR-23
Check-back reminder	The phone → its owner	Remind a student on "On this phone" to look at the log	30 days after the window closes, then every 60 days until the final rule or 12 months, whichever comes first (to test in Next Steps 3)	L5 · FR-24
Anonymous alert (opt-in)	Echo → opted-in devices	Say that a followed rule has moved	When the log records an OIRA review, the final rule or the effective date	L5 · FR-25
Office digest	Echo → subscribed offices	New log entries for the dockets an office follows	When the log changes	D4 · FR-32

Message	From → to	Purpose	When	Story, FR
Log update relay	Office → all affected students	Share what DHS decided, with the log link	When the final rule is published	D4 · FR-32

Templates

Rule notice (from the office)

Subject: A proposed rule may change how long you can stay in the U.S.

The Department of Homeland Security has proposed a rule that would replace "duration of status" with a fixed end date for F and J students. Public comments close on [date, time ET].

If this affects you, Echo shows which parts of the rule apply to your situation, helps you write a comment in your own words, and shows what will be public before you submit. You need no account; you can stay anonymous, and this link does not identify you.

[Open Echo] · [Comment clinic: date, room]

Our office takes no position on the rule, and you do not have to comment. Questions about your own status: [advising contact].

Clinic invitation (from the office)

Subject: Comment clinic: [rule name], [date]

We are holding a 45-minute session for students who want to comment on [rule name]. You write your own comment in Echo; staff and legal-aid volunteers answer questions. If you would rather not post, you can share your experience with us as an evidence card with no name, and we may include it in the university's own comment.

[Date, time, room] · No sign-up needed.

Reminders on the phone (local notifications, never sent through Echo)

Deadline: "Your saved draft: comments close in 2 days."

Check-back: "Time to check the log for a rule you follow."

Anonymous alert

Lock screen: "A rule you follow has an update."

In the app: "DHS published the final rule on [date]. See what changed on your provisions."

Office digest (from Echo)

Subject: [Docket ID]: new entry in the public log

[Date]: [event, e.g., "Final rule published"]. [One-line summary.] Log entry: [link]. Relay template: [link].

Log update relay (from the office)

Subject: Final rule published: what changed for F and J students

DHS published the final rule on [date]; it takes effect on [date]. The public log shows, provision by provision, what changed and how DHS responded to comments: [log link]. If you commented with Echo, your provisions are highlighted on your own phone. We do not know who commented, and neither does Echo.

11 External Links

Figures

- [All 12 figures at full size \(Google Drive folder\)](#)

The case

- [Proposed rule, 90 FR 42070 \(Federal Register, 2025-08-28\)](#)
- [Final rule, 91 FR 44976 \(Federal Register, 2026-07-17\)](#)
- [OIRA review record \(Reginfo.gov\)](#)

How commenting works

- [5 U.S.C. § 553, rulemaking \(Cornell LII\)](#)
- [Protect Democracy: What Makes an Effective Public Comment](#) (covers *Ohio v. EPA*, 2024)
- [Regulations.gov user notice, anonymous submission · Regulations.gov API and field visibility \(GSA\)](#)
- [NY Attorney General report on fake net neutrality comments \(2021\)](#)

Evidence and comparable tools

- [Bettinger et al. 2012, The Role of Application Assistance and Information in College Decisions \(QJE\)](#)
- [Public Comment Project](#)
- [Onect, UX Design Awards 2026](#) (inspiration for the two-sided structure)
- [Scalable Path: How to Write an Effective PRD](#) (the template's source)

12 AI Usage

I used Claude throughout this assignment: after I scoped the topic, I used Claude to check facts against primary sources (the Federal Register, Reginfo.gov, the Regulations.gov API documentation), watch related products, revise behaviour economics concepts' implementation in policymaking (I took that course last term), and build the prototype with Figma Connector.

Reflections:

- **I kept the decisions.** Every product decision (individual users as the primary user, anonymous by default, a public log instead of personal notifications, which follow-up options enter the MVP) was a choice I made after the AI laid out options and trade-offs. Several of the strongest ideas came from pushing back on its first suggestions; for example, it proposed storing contact details to notify anonymous users, and I pointed out that this is itself a record.
- **Verification mattered.** The AI separated what it had verified from what it remembered, and some recalled details were wrong or unverifiable. I kept a list of unverified claims and checked the key facts in primary sources.
- **The product's rule applied to my process.** Echo never writes a comment for its users because a comment should carry the person's own evidence and voice. I tried to hold myself to the same standard: the AI drafted and structured, but the argument and the judgment had to be mine.

13 Notes

Next steps (validate before building)

#	Step	Assumption tested	Success signal
1	Analyze 200 public comments on the D/S docket against DHS's responses	Provision-linked evidence gets engaged more than general objections	A clear difference between the groups
2	Randomized trial with international students: plain-language summary only vs. full Echo flow	Echo improves informed decisions and substance compared with information alone	Higher informed decision and substance pass rates; no rise in pressure to comment
3	Clickable test of screens 06, 08 and 10 with 8 international students	Seeing what is stored and for how long makes people more willing to comment and to follow up	Most can explain what is public and what is stored, and choose a follow-up option
4	Publish a manual public log for the D/S rule; pilot a comment clinic at one university	Offices will relay the log and host a clinic	One office relays; one clinic runs
5	Run V1 end to end on the next live docket affecting international students	The full flow works under a real deadline	Hand-offs, posted checks and substance pass rate
6	Approach one agency or federal digital-service team about a V2 pilot	Agencies will try a provision-level comment tool	A pilot agreement
7	Before building, test whether the public Regulations.gov API can confirm a comment by tracking number from a phone	The posted check (FR-23) works without passing through Echo	A working request from a browser; if not, a fallback the student runs by hand

Open questions

- Can a commenter withdraw a comment after submission, and who controls that?
- Is there public evidence that agencies link comments to individual case files? How should Echo phrase "nobody knows" without alarm or false comfort?
- Where is the line between plain-language explanation and legal advice?
- Can the public Regulations.gov API confirm a comment by tracking number from the user's device?
- How long do offices keep evidence cards, and could they be asked to hand them over? What should the touchpoint kit tell them?