Story Arcade – Product Requirements Document

Executive Summary

Project Name: Story Arcade – AI-Powered Community Story Booth
Event: Alif × Replit Tournament (January 3 deadline; hackathon dates TBD)
Track: Unique Use Case
Core Thesis: Transform AI storytelling from a solo productivity tool into a playful, public ritual where people see themselves as protagonists in their community's narrative.

---

1. Problem Statement

Current State

- Community stories exist but are often isolated: locked in personal conversations, written in longform projects, or told casually without recorded permanence.
- Existing AI tools are individual-first, productivity-focused, and text-heavy; they don't create space for public, collective storytelling.
- Events rarely offer low-friction ways for everyone (kids, elders, artists, non-writers) to feel heard and central to their neighborhood's mythology.

Opportunity

- A booth-like experience removes friction: walk up, answer 5 quick questions, walk away with a sharable artifact that makes you feel seen.
- AI as a *communal ritual*, not a solo chatbot.
- Immediately deployable at community events, galleries, schools, and hackathons; extensible into a traveling arcade or permanent installation.

---

2. Vision & Core Concept

Tagline

Turn your neighborhood stories into mini movie posters in under a minute.

Elevator Pitch

Story Arcade is a web-based "arcade booth" where people step up, choose a story track (Origin Story, Future NYC, Neighborhood Legend), answer five playful prompts about themselves and their community, and instantly receive a cinematic story card—a stylized visual with a logline and 3-paragraph narrative—that they can save and share.

Why It Matters

- **For users:** A rare moment where an AI tool feels like *your* storyteller, not a productivity assistant. You walk away with a keepsake and a new way of thinking about yourself.
- **For communities:** Collective storytelling as a ritual strengthens belonging. It also creates a body of narratives that can be archived, celebrated, or exhibited.
- **For the hackathon:** A genuine "novel use of technology"—AI driving a social/cultural experience rather than automating work.

---

3. Target Users & Personas

Primary

- **Event attendees** (ages 8–80): People at community centers, hackathons, gallery openings, school assemblies, etc. No tech literacy required; the booth does the work.
- **Storytellers who don't write:** Kids, elders, working people, artists, folks for whom a blank page feels scary but a prompt feels like an invitation.

Secondary

- **Community organizers:** Want to run a storytelling activity at their event without heavy lift; Story Arcade handles facilitation and documentation.
- **Educators:** Want students to explore identity, futures, and place through a playful, tech-enabled lens.

Hackathon Judges

- Want to see a concept that clearly transcends the weekend and has legs in the real world.
- Appreciate both technical execution and cultural/social insight.

---

4. User Experience Flow

A. First-Time User (Main Path)

Home / Attract Screen
↓
Tap "Start my story"
↓
Choose Track (Origin Story / Future NYC / Neighborhood Legend)
↓
Answer 5 Questions (card-by-card or chat-style)
↓
Auto-generate & Reveal Story Card
↓
View: Track label + Hero image + Logline + 3 paragraphs
↓
Actions: New story / Try another track / Share (copy text)

B. Demo Mode (for judges / quick showcase)

Home screen → Hidden "Demo" button or key combo
↓
Auto-populate sample answers
↓
Instant story generation
↓
Show story card, optionally step back to show question flow

C. Returning User (Same device)

New story → Pick track → Answer questions → Get story → Repeat

---

5. Core Features (MVP)

5.1 Track Selection

- **Display:** Three distinct "machines" with visual icons and 1–2 sentence pitches.
- **Interaction:** Tap to enter a track; hover shows a sample story title or mood.
- **State:** Save selected track for question generation.

Tracks:

1. **Origin Story** – "How did I become me?"
2. **Future NYC** – "What does my city look like when we win?"
3. **Neighborhood Legend** – "What's the myth our block will tell?"

5.2 Question Engine

- **Load:** Based on track, display 5 questions in sequence.
- **Progress:** Visual indicator ("Scene 1 of 5" or "Stage 1–5").
- **Input:** Text fields; assume short answers (1–2 sentences per Q).
- **Save:** Collect answers into a local state object keyed by field name.
- **Validation:** Warn user if they try to advance with empty answer; don't block (allow "skip" if needed).

5.3 Story Generation Engine

- **Inputs:** Map of 5 answers → `{field_1: "answer_text", field_2: "answer_text", ...}`.
- **Logic:**
    1. Pick 1 of 2–3 narrative patterns for the track (random or by answer heuristic).
    2. Interpolate field values into template slots.
    3. Generate a single logline (1 sentence, cinematic framing).
    4. Generate 3 paragraphs:
        - **P1:** Scene-setting and character intro.
        - **P2:** Turning point or action.
        - **P3:** Resolution and community impact.
- **Output:** Structured object: `{logline, paragraphs[], track_id, answers}`.

5.4 Story Card Display

- **Layout:**
  - **Header:** Track label (e.g., "Neighborhood Legend"), neighborhood name, small icon.
  - **Hero zone:** Image placeholder or simple styled frame (can be static per track or lightly varied).
  - **Title:** Logline in large, readable type.
  - **Body:** 3 paragraphs, good line-length, readable serif or sans-serif.
  - **Footer:** "Printed by Story Arcade v1" + call to action ("What's the sequel?" / "Show this to someone who was there").
- **Styling:** One cohesive design per track (distinct color, accent, border treatment).
- **Responsive:** Works on tablet and laptop; mobile-friendly if possible.

5.5 Navigation & Reset

- **Buttons on story card:**
  - "Run it again" (same track, new answers).
  - "Try another track" (back to track select).
  - "New story" (back to home).
- **Quick return:** Allow user to abandon halfway and go back to home without data loss.

---

6. Content Specification

6.1 Questions by Track

Track 1: Origin Story

1. **What's your name (or nickname) and what neighborhood do you represent?**
   - Field key: protagonist_name, neighborhood.
2. **If your life so far were a movie genre (coming-of-age, heist, sports anime, documentary, etc.), what would it be?**
   - Field key: life_genre.
3. **What's one challenge you've had to push through recently?**
   - Field key: recent_challenge.
4. **What's a small moment where you helped someone or your community, even if nobody noticed?**
   - Field key: community_moment.
5. **In one sentence, what do you hope people will say about you 10 years from now?**
   - Field key: future_legacy.

Track 2: Future NYC

1. **Which part of NYC do you want to transform first (borough, neighborhood, or a specific spot)?**
   - Field key: area_to_transform.
2. **In 2036, what's one problem in your area that has been solved?**
   - Field key: problem_solved.
3. **What new ritual or daily scene appears in your future NYC (on the train, in schools, on the block)?**
   - Field key: future_ritual.

4. **Who benefits the most from this change (kids, elders, artists, workers, etc.), and how do they show it?**
    - Field key: beneficiary_group, beneficiary_proof.
5. **What's one sound, smell, or visual detail that tells you "the future is here" when you step outside?**
    - Field key: sensory_detail.

Track 3: Neighborhood Legend

1. **What's your neighborhood called, and what's one thing it's known for right now?**
    - Field key: neighborhood_name, known_for.
2. **Who is the main character of this legend (you, a friend, an elder, a kid, or even a place/object)?**
    - Field key: protagonist_type.
3. **What strange or magical event kicks the story off (blackout, storm, mural that moves, mysterious package, etc.)?**
    - Field key: inciting_event.
4. **How does the neighborhood come together during the story (block party, protest, late-night mission, etc.)?**
    - Field key: community_response.
5. **At the end of the legend, what changes for the neighborhood forever?**
    - Field key: permanent_change.

6.2 Narrative Patterns (Examples)

Origin Story – Pattern A: "The Catalyst"

Logline:
"[protagonist_name] from [neighborhood] learned that strength means showing up for others, even when the world didn't ask."

P1:
"[protagonist_name] grew up in [neighborhood] with a life that felt less like a movie and more like a [life_genre]. The challenges kept coming—[recent_challenge]—but each one taught something."

P2:
"One day, without fanfare, [protagonist_name] saw someone who needed a hand. That moment—[community_moment]—shifted something. It wasn't fame or recognition, just the quiet knowledge that a single action ripples."

P3:
"Ten years from now, [protagonist_name] hopes people will say: [future_legacy]. That's the real story—not the challenges overcome, but the person choosing to be someone others can count on."

Future NYC – Pattern A: "The Ritual"

Logline:
"In 2036, [area_to_transform] proves that when we solve [problem_solved], everything changes."

P1:
"Walk through [area_to_transform] in 2036 and you'll see it immediately: [future_ritual]. It's

the new rhythm of the neighborhood, the thing that didn't exist before."

P2:
"The people who feel it most are [beneficiary_group]. They show it in [beneficiary_proof]. It's not just a policy win; it's a vibe shift."

P3:
"Step outside and you know the future is real: [sensory_detail]. That's when you know [area_to_transform] isn't imagining anymore. It's happening."

Neighborhood Legend – Pattern A: "The Turning"

Logline:
"On an ordinary night in [neighborhood_name], a legend was born when [inciting_event]."

P1:
"[neighborhood_name] was known for [known_for], but on that night, everything shifted. The story started with [protagonist_type], and it was [inciting_event] that changed everything."

P2:
"The whole block felt it. [community_response] brought people together in ways nobody planned. It was messy, alive, real."

P3:
"After that night, [neighborhood_name] was different. [permanent_change]. And anyone who was there will tell you: that's when the myth started."

---

7. Design & Visual Identity

7.1 Tone & Aesthetics

- **Visual language:** Retro-futurist arcade + neighborhood film festival.
- **Keywords:** Booth, ticket, projector, film frame, block party, street culture, cinema.
- **Vibe:** Warm, inviting, cinematic, celebratory—like stepping into a movie or game.

7.2 Key Design Elements

- **Arcade booth metaphor:**
  - Frames and borders that evoke old arcade cabinets or ticket windows.
  - Progress indicators styled as "Scenes" or "Stages," not generic progress bars.
  - Micro-copy that speaks in character: "Director's note," "Narrator's whisper," "Insert story to play."
- **Film poster / comic book influences:**
  - Story card layout resembles a mini movie poster.
  - Bold typography hierarchy.
  - Hero image / frame central to the reveal.
  - Logline as the focal point.

7.3 Color & Typography

- **Define 2–3 main brand colors** (one background/dark, one accent/bright).
  - Example: Deep charcoal + bright orange, or navy + cream.
  - Assign one primary color per track for visual distinction.
- **Typefaces:**
  - 1 display font for headings (bold, distinctive; e.g., geometric sans or slab serif).
  - 1 body font (clean, readable; e.g., modern humanist sans or serif for story text).
- **Spacing:** Establish a simple grid or spacing scale (8px, 16px, 24px, etc.) so movement is fast.

7.4 Screens & States

Screen 1: Attract / Home

- Large central CTA: "Insert story to play" or "Start your story."
- Three track cards (Origin, Future NYC, Legend) with icons and 1–2 line descriptions.
- Subtle looping animation or color shift to signal interactivity.
- Optional: gallery of recent stories in background or as small carousel.

Screen 2: Question Flow

- One question per screen (full bleed or contained card).
- Progress indicator top: "Scene 1 of 5" or visual stage marker.
- Warm micro-copy above or below prompt (e.g., "Director's note: keep it real, not perfect").
- Large text input or textarea.
- Next button or auto-advance on input.
- Skip / Back buttons.

Screen 3: Story Reveal

- Fade to black momentarily, then reveal story card with gentle fade or slide-in.
- Play a subtle "printing" or "reveal" animation if possible (e.g., card slides up or text typewriter effect).

Screen 4: Story Card (Display)

- Full card layout:
  - Top bar: track label, neighborhood chip, icon.
  - Hero zone: image frame + logline.
  - Body: 3 paragraphs with good readability.
  - Footer: "Printed by Story Arcade v1" + action buttons.
- Buttons: "New story," "Try another track," "Copy link" (if built).

---

8. Technical Requirements

8.1 Platform & Stack

- **Requirement:** Single-device web application (laptop/tablet).
- **Recommendation:** Replit + React/Next.js, or no-code builder (Lovable, Webflow, etc.).
- **Must-have:** Responsive design; works on screen sizes 768px and up (tablet / laptop).
- **Optional:** Mobile optimization if time permits.

8.2 Data Structure

Track {
id: string (e.g., "origin", "future_nyc", "legend")
name: string
description: string
color: string (hex or CSS variable)
icon: string (emoji or SVG name)
questions: Question[]
patterns: NarrativePattern[]
}

Question {
id: string
prompt: string
fieldKey: string (used in story generation)
inputType: string (e.g., "text", "textarea")
placeholder: string (optional)
}

NarrativePattern {
id: string
name: string (e.g., "The Catalyst")
loglineTemplate: string
paragraphs: string[] (array of 3 template strings)
fieldMap: { [key: string]: string } (maps template placeholders to field keys)
}

Story (runtime) {
trackId: string
answers: { [fieldKey: string]: string }
logline: string (generated)
paragraphs: string[] (generated)
generatedAt: timestamp
}

8.3 Core Logic

1. **Track Selection:**
    - User taps track card.
    - Load `tracks[trackId].questions` into state.
    - Show first question.
2. **Question Flow:**
    - Iterate through questions one at a time.
    - Save each answer to `answers[fieldKey]`.

    - On final answer, trigger story generation.
3. **Story Generation:**
    - Fetch track's patterns.
    - Pick one at random (or by heuristic).
    - Iterate through loglineTemplate and paragraph templates.
    - Replace template placeholders (e.g., [protagonist_name]) with values from answers.
    - Return generated `Story` object.
4. **Story Card Rendering:**
    - Render `Story` object into card layout.
    - Apply track's color and styling.
    - Show action buttons.
5. **Reset / Navigation:**
    - "New story" → clear answers, go back to question flow for same track.
    - "Try another track" → go to track selection.
    - "Home" → go to attract screen.

8.4 Hosting & Deployment

- Deploy to Replit directly (if using Replit).
- Or deploy to Vercel / Netlify if using Next.js.
- Ensure HTTPS and fast load times.

---

9. Success Criteria (MVP)

Must-Have (Weekend 1)

- [ ] Track selection screen and navigation working.
- [ ] All three tracks with 5 questions each loaded and displayable.
- [ ] Question flow saves answers to local state.
- [ ] Story generation engine produces a logline + 3 paragraphs (templated, not AI-generated yet).
- [ ] Story card displays generated content with basic styling.
- [ ] "New story" and "Try another track" buttons functional.
- [ ] Visible brand identity and arcade booth aesthetic applied.
- [ ] Works on tablet / laptop (responsive).
- [ ] Demo mode (auto-fill + instant generation) for judges.

Nice-to-Have (If time)

- [ ] Lightweight AI text generation (e.g., Claude API or Gemini) to vary narrative output.
- [ ] Gallery mode showing last 5–10 stories.
- [ ] "Copy story to clipboard" feature.
- [ ] Subtle animations (fade, typewriter effect on reveal).
- [ ] Mobile-friendly responsive design.
- [ ] Persistent storage (localStorage) so stories aren't lost on refresh.

---

10. Go-to-Market (Post-Hackathon)

Phase 1: Proof (Now through Jan 31)

- Hackathon demo + winner announcement.
- Capture feedback from judges and users.
- Document 10–20 sample stories.

Phase 2: Real-World Test (Feb–Mar)

- Partner with 1–2 community venues (community center, gallery, school event) to run Story Arcade as a booth.
- Refine prompts and narrative patterns based on real user behavior.
- Collect media (photos, videos, stories).

Phase 3: Toolkit (Apr+)

- Release as open-source or easy-to-fork template.
- Create a "host guide" for community organizers.
- Offer customizable tracks for different communities / themes.
- Pitch to institutions (schools, museums, cultural orgs) as a cultural engagement tool.

---

11. Risk & Mitigation

Risk	Mitigation
Story generator produces generic or off-tone output.	Use tight templates + manual curation of a few sample patterns. Test with real users before hackathon.
Users don't engage with prompts or answer minimally.	Make prompts playful and low-pressure. Offer examples or starter phrases. Emphasize "keep it real, not perfect."
Technical complexity / scope creep on weekend.	Lock feature set by Monday (only 3 tracks, 5 Qs each, 2 patterns per track). Use no-code or low-code tools to move fast.
Display / UX doesn't feel "arcade"-like enough.	Invest time in visual design early. Use borders, frames, and micro-copy to reinforce metaphor. Test on actual screen setup.
Judges don't see extensibility / real-world potential.	Include a short "What's next" slide in pitch. Show mockup of gallery mode or community event setup. Emphasize cultural impact.

---

12. Pitch Angle for the Hackathon

Why This Track (Unique Use Case)

- **Novel:** AI storytelling as a *public, arcade-like ritual*, not a solo chatbot or productivity assistant.
- **Creative:** Uses tech to strengthen community belonging, not to automate or optimize.
- **Extensible:** Clear path from hackathon prototype to real-world installations at events, schools, galleries.

Why It Wins

- **Judges see:** A full, polished user experience in 36 hours—design, logic, and genuine cultural insight.
- **Users see:** A moment where AI made them feel *heard*, not just productive.
- **Community sees:** A tool they can actually use and adapt for their own spaces.

---

13. Team Roles & Responsibilities (Template)

Role	Responsibilities
Creative Director	Track selection design, visual identity, story card layout, copy/tone.
Engineer	Front-end build, state management, story generation logic, deployment.
Content/Narrative	Question copywriting, narrative patterns, loglines, demo story examples.
UX/QA	Question flow testing, demo mode setup, user feedback, final polish.

---

14. Appendix: Sample Generated Stories

Example 1: Origin Story

User answers:

- Name: Maya, Neighborhood: Sunset Park
- Genre: Sports anime
- Challenge: Learning to trust myself after a big failure.
- Community moment: Teaching my younger cousin how to code.
- Future legacy: "She showed up even when it was scary."

Generated story:
LOGLINE:

Maya from Sunset Park learned that showing up for others, even after your own fall, is the realest strength there is.

P1:
Maya grew up in Sunset Park with a life that felt less like a movie and more like a sports anime—full of rivals, comebacks, and moments where the whole arena held its breath.
But learning to trust herself after a big failure taught her that not every loss is the end of the story.

P2:
One humid afternoon, Maya's younger cousin sat down confused in front of a laptop screen.
Instead of running away, Maya sat beside them and showed them how to code. It wasn't a grandstand moment;
it was just two people in a kitchen, and code on a screen starting to make sense.

P3:
Ten years from now, Maya hopes people will say: "She showed up even when it was scary." That's the real story—not the failure overcome, but the person choosing to be someone a kid could trust.

Example 2: Future NYC

User answers:

- Area: East New York, Brooklyn
- Problem solved: Food deserts become neighborhood farms.
- Future ritual: Kids grow vegetables in every schoolyard.
- Beneficiary: Kids and their families; they eat better and love gardening.
- Sensory detail: The smell of soil and tomato vines in the summer air.

Generated story:
LOGLINE:
In 2036, East New York proved that when we grow food at home, everything changes.

P1:
Walk through East New York in 2036 and you'll see it immediately: kids are growing vegetables in every schoolyard. It's the new rhythm of the neighborhood, a ritual born from a simple question: what if we could feed ourselves?

P2:
The people who feel it most are the kids and their families. They show it in their faces when they harvest a tomato they grew with their own hands, in the dinners cooked from food they pulled from the soil. It's not just health; it's pride.

P3:
Step outside on a summer evening in East New York and you know the future is real: the smell of soil and tomato vines fills the air. That's when you know East New York isn't imagining anymore. It's growing.

---

15. Next Steps (This Week)

- [ ] Lock final copy for all questions and patterns.
- [ ] Create wireframes / mockups for the 4 key screens.
- [ ] Decide on tech stack (Replit + React, no-code tool, etc.).
- [ ] Set up project skeleton (files, folders, data structure).
- [ ] Create a simple style guide (colors, fonts, spacing).
- [ ] Build a trello or task board with hackathon timeline.

Document Version: 1.0
Last Updated: January 11, 2026
Next Review: Post-hackathon (Feb 2026)