

— LIAM ELLIS · AI CONSULTANT

What does it actually look like to build the digital infrastructure for a 99-year-old nonprofit from scratch?

Lundstrum Performing Arts runs conservatory-level theater training in North Minneapolis. They had deep programs, committed staff, and almost no operational systems. The through-line across everything built: institutional knowledge that lived in people's heads gets moved into structured, queryable systems that outlast any individual contributor.

NEXT.JS 15 · REACT 19

TYPESCRIPT · SHADCN/UI · GSAP

ANTHROPIC CLAUDE API

REMOTION · HIGGSFIELD AI

HTML EMAIL · SOCIAL STRATEGY

WHAT WAS ACTUALLY BROKEN

A real institution
running on institutional
memory alone.

Leadership had no live view of grant status, gala task progress, or donor pipeline. Everything lived in someone's head, a shared spreadsheet, or a PDF that was already out of date. When the ED needed to brief the board, they assembled the presentation manually. When staff needed org history for a grant proposal, they navigated the live website.

The brand existed as a logo. Colors had never been documented with print specs. Email campaigns went out without cross-client testing — Outlook was rendering them broken. Marketing was ad-hoc and voice was inconsistent across staff.

THE SCOPE OF THE ENGAGEMENT

Technical Consulting · Jan – May 2026

Return engagement following prior AI/AV pipeline work (Sep 2024 – Feb 2025). This phase: full-stack engineering, brand systems, agent architecture, production tooling, and marketing operations.

The org by the numbers

\$10.3M	\$2.4M
Total assets	Annual revenue
~40%	99 yrs
Students on scholarship	Founded 1927

"Broadway-level training.
Community-level access."

01 — ORGANIZATIONAL DASHBOARD

Leadership needed one place to see everything. It didn't exist.

Built a full Next.js 15 / React 19 organizational command center with TypeScript strict mode, shadcn/ui, GSAP scroll-reveal animations, and Recharts. Six data-rich tabs — gala operations, campaign tracking, board directory, grant visualization, task management, and documentation — each solving a distinct operational blind spot that leadership was previously managing manually or not at all.

WHY THIS STACK

Recharts over D3 for rapid iteration on 12+ chart types without sacrificing customization. `useLayoutEffect` instead of `useState` for `localStorage` to prevent hydration mismatch in the App Router. GSAP context cleanup on every unmount — most implementations skip this and leak memory on navigation.

ACCESSIBILITY STANDARD

18:1

Primary text contrast ratio. WCAG AA requires 4.5:1. AA requires 7:1. This dashboard runs at 18:1 — because "accessible" is a floor, not a ceiling. Every interactive element has ARIA labels and keyboard navigation. `prefers-reduced-motion` respected on all GSAP animations.

What each tab replaced

Gala Tasks — manual spreadsheet with no status visibility

Grant Drafts — PDF review process with no live data

Campaign — no documented Patrick Moore Scholarship timeline

Board Directory — email chain to find a contact

02 — SIX-AGENT AUTONOMOUS OPERATIONS

The org's operations shouldn't be locked in one person's head.

Architected a six-agent autonomous operations system on the Anthropic Claude API. Each agent has a role-scoped definition file, a working directory, and pulls from a shared markdown knowledge base as context — so any agent can produce a grant proposal, social post, or donor update that reflects real organizational data without manually re-researching it every time.

THE REAL DURABLE ASSET ISN'T THE AGENTS

The corpus is. The agents are a delivery mechanism — they query it, cite it, and write from it. Without the corpus, each invocation would require manually re-feeding context. `AGENT_COORDINATION.md` defines hand-off rules, human review triggers, and what each agent is blocked from doing autonomously. A human can run this operating model with or without AI. The knowledge doesn't leave when a staff member does.

M

Marketing Agent

Social calendars, campaign briefs, donor narratives, brand monitoring. Generates consistent-voice content from the shared knowledge corpus.

G

Grant Writer

Funder research, proposal structure, compliance tracking. Target: 45–50% grant success rate, \$250–350K annual revenue.

E

Event Coordinator

Gala logistics, ticket operations, sponsor pipeline. 2026 "Out of the Ordinary" Gala — \$100K+ revenue target, US Bank as confirmed Producer sponsor.

D

Data Analyst + Content Manager

Metrics dashboards, enrollment reporting, knowledge governance. Flags inconsistencies, maintains source-of-truth directories.

03 – STRUCTURED KNOWLEDGE CORPUS

200+ organizational files, made queryable for the first time.

Converted 15+ lundstrum.org pages, 35+ blog posts (2016–2024), rehearsal transcripts, and the full FY24–25 annual report from PDFs and live-site HTML into structured markdown. The corpus is the shared context layer that all six agents pull from — so a grant proposal written by the Grant Writer agent actually cites the org's real student demographics, not generic nonprofit boilerplate.

WHAT THIS UNLOCKS

Before: a staff member writing a grant application would spend 2–3 hours re-researching org history and pulling metrics from PDFs. After: the agent queries the corpus and cites real data. The analytical work — flagging a scholarship percentage discrepancy (30% in one source vs. 40% in another), correcting an address typo, renaming misidentified files — is what makes the corpus trustworthy, not just large.

200+

FILES STRUCTURED

35+

BLOG POSTS ARCHIVED

15+

SITE PAGES CONVERTED

Annual Report — now queryable

\$10,275,994	40%
Total assets (FY24–25)	Students of color
37%	16
From North Minneapolis	Community partnerships
23	1927
Major donors (\$10K+)	Founded — 99 years

Previously locked in a PDF. Now a structured file every agent can cite.

04 — WEB, PRINT,
VIDEO, AND EMAIL

11
standalone
experiences.
One of
them ran a
live
fundraising
campaign.

Eleven production
HTML experiences
built from scratch —
gala landing pages
with GSAP
ScrollTrigger
animations, theatrical
cue cards with CSS
@page rules sized to
28×22in broadsheet
for large-format
printing,
organizational
reference tools, and
event pages. Each is
self-contained, no
build step required.

THE VIDEO
PIPELINE

Scaffolded a
Remotion
(React/TypeScript)
video framework
integrated with

Email: 7 documented Outlook/Apple Mail fixes

Cross-client HTML email is its own discipline. Campaigns were deployed v
clients that handle CSS badly:

→

BRAND ENGINEERING

05 — COLOR, TYPE, AND TOKENS

They had a
logo. Not a
brand system.

The magenta, orange, gold,
purple, and grey existed —
they came from the logo.
What didn't exist: Pantone
and CMYK specifications
for print vendors, hex and
RGB values for digital, a
typography pairing with
clear hierarchy, or a JSON
token file for consistent
cross-platform
implementation. Built all
of it.

THE 500-LINE STYLE GUIDE

lundstrum-communication-
style.md — five tone
attributes (Bold,
Precise, Professional,
Warm, Direct), six
writing principles, and
channel-specific
guidance for email,

PRIMARY

#AA2D84

PMS 7656

C

ACC

#EF

PMS

C

Typograp

BEB

Display /
46px. Geo
as theatr
requiring

Camingoa

Body text
approacha
community
operation
in typogr

lundstrum.js:
hex/RGB/CMYK
spacing sys
heights, ra