**CommunityInsight.AI Application Feature Specification Document**

**Updated: June 17, 2025 - Illinois Pilot Implementation**

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# **1. Introduction**

This document outlines the detailed features of the CommunityInsight.AI platform. It is organized for use by designers, engineers, and product stakeholders to plan and execute the build of a functional MVP and future iterations.

**Illinois Pilot Update:** This specification has been updated to reflect the comprehensive Illinois pilot implementation completed in June 2025, including geographic context systems, multi-jurisdiction monitoring, and grant discovery features.

# **2. Feature Table**

## **Core MVP Features (IMPLEMENTED)**

**F01 - Community Feedback Ingestion:** Upload or connect forms (Google Forms, Typeform) for feedback input. Drag-and-drop upload zone with CSV support implemented.

**F03 - Natural Language Query:** Users ask questions in natural language and get summary answers. Modal-based query system with contextual AI responses implemented.

**F04 - Theme & Sentiment Extraction:** Extract key topics and sentiments using LLM and embeddings. Automated sentiment analysis with visual dashboard implemented.

**F05 - Visual Dashboard:** Auto-generate charts and themes (e.g. word clouds, bar graphs). Professional PDF export with charts and visualizations implemented.

**F06 - Report Export:** Generate PDF/CSV reports for grants or stakeholders. 5 template types with professional PDF generation implemented.

**F07 - Token-based Access System:** Tiered access using tokens (Free, Premium). User token tracking and usage monitoring implemented.

**F10 - Data Ethics & Transparency Notice:** Auto-generated transparency disclosures per dataset. Ethics notice in sidebar with transparency messaging implemented.

**F11 - Prebuilt Insight Templates:** Templates for school reports, grant applications, issue briefs. 5 professional templates with context-aware content implemented.

**F12 - User Role Permissions:** Set different permissions for editors, viewers, and data contributors. User authentication and role-based access implemented.

## **Illinois Pilot Features (IMPLEMENTED)**

**F16 - Geographic Context System:** Display jurisdiction, demographics, and institutional context. Illinois-specific with municipal, county, school district support implemented.

**F17 - Institution Selection:** Switch between different civic institution types and contexts. Dynamic context switching with realistic demographics implemented.

**F18 - Multi-Jurisdiction Monitoring:** Monitor insights across multiple locations simultaneously. Family-focused use case: rural + metro contexts implemented.

**F19 - Grant Proposal Buddy:** AI-powered grant discovery and matching system. Match scoring, complexity analysis, strategic guidance implemented.

**F20 - Evidence-Based Grant Analysis:** Match community needs to funding opportunities. Success rates, competitiveness scoring, next steps implemented.

**F21 - Responsive Design System:** Mobile-first design with touch-friendly interactions. Full responsive design across all breakpoints implemented.

**F22 - Professional PDF Generation:** Grant-ready reports with charts and executive summaries. Multi-page layouts with visual elements implemented.

## **Future Features**

**F02 - Social Media Listener:** Connect to Facebook/Twitter pages to ingest community comments.

**F08 - Civic Portal Integration:** Import city council agendas, public comment transcripts.

**F09 - Multilingual Input & Output:** Translate input and output for diverse community inclusion.

**F13 - Feedback Trend Alerts:** Notify teams of changes in sentiment or spikes in issue mentions.

**F14 - Community-facing Dashboard:** Public-facing version of key insights for transparency.

**F15 - API Access for Civic Developers:** Developers can access data and insights via API.

# **3. Feature Descriptions by Persona**

### **Admin (Nonprofit/Local Gov Leaders)**

• Data Management: Upload community feedback via drag-and-drop interface

• Institution Configuration: Select and configure civic institution type and geographic context

• Report Generation: Create grant-ready PDF reports using professional templates

• Grant Discovery: Use Grant Proposal Buddy to find relevant funding opportunities

• Multi-Location Monitoring: Track insights across multiple jurisdictions

• Ethics & Transparency: Access built-in transparency notices and data ethics guidelines

### **Analyst (Data Staff, Program Evaluators)**

• Natural Language Analysis: Ask questions about community feedback in plain English

• Visual Insights: Access dashboard with sentiment analysis and trend visualizations

• Template-Based Reporting: Generate specialized reports for different audiences

• Grant Strategy: Analyze funding opportunities with success rate and complexity assessments

• Geographic Context: Understand demographic and institutional context for accurate analysis

• Evidence-Based Applications: Use community feedback data to support grant applications

### **End User (Concerned Citizens)**

• Community Insights: View dashboard showing local community sentiment and priorities

• Multi-Location Awareness: Monitor both personal community and family-connected areas

• Accessible Querying: Ask natural language questions about community concerns

• Mobile Access: Full functionality on mobile devices with responsive design

### **Manager (School Comm., Foundation Officers)**

• Strategic Overview: Access executive summaries and high-level trend analysis

• Grant Opportunities: Review matched funding opportunities with strategic timelines

• Cross-Jurisdictional Analysis: Compare insights across different geographic areas

• Professional Reporting: Download presentation-ready reports for stakeholders

# **4. Prioritization and Development Notes**

### **MVP Completion Status (June 2025)**

**COMPLETED:** Core data ingestion and analysis pipeline, Natural language query system with AI responses, Professional report generation (5 template types), Visual dashboard with sentiment analysis, Token-based access system, Geographic context system for Illinois pilot, Multi-jurisdiction monitoring capabilities, Grant discovery and matching system, Responsive design across all devices, Ethics and transparency framework

### **Current Production Features**

• Illinois Geographic Context: Supports Rockford, Aurora, Winnebago County, Kane County

• Institution Types: Municipal governments, county governments, school districts

• Grant Database: Illinois Build Infrastructure, USDA Rural, Title I Education, Mental Health Block grants

• Report Templates: Grant Application, Board Summary, Policy Brief, Impact Assessment, Community Report

• Mobile Optimization: Touch-friendly interface with organized navigation

# **5. Recent Implementations (June 2025)**

### **Geographic Context System**

**Purpose:** Provide transparent, jurisdiction-specific context for all community insights. Dynamic cards showing population, response counts, demographic breakdowns with Illinois focus and realistic demographics for municipalities and school districts.

### **Multi-Jurisdiction Monitoring**

**Use Case:** Parents monitoring both rural Illinois community and child's metro Chicago school district. Features side-by-side comparison, relationship tracking, economic disparity analysis with tabbed interface.

### **Grant Proposal Buddy**

**Purpose:** Intelligent funding opportunity discovery based on documented community needs. Features match scoring (89-94%), complexity analysis, success rate assessment, strategic guidance with step-by-step actions, and integration with existing community feedback data.

*This specification reflects the completed Illinois pilot implementation as of June 17, 2025. Future development will focus on API access, multilingual support, and expanded civic portal integrations based on pilot feedback.*