AI-Powered Social Media Content Creation & Management App

Product Requirements Document (PRD)

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1. Executive Summary

Product Vision

Create an all-in-one AI-powered social media management platform that transforms content creation from a time-consuming task into an intelligent, automated, and highly effective process for creators, businesses, and marketing teams.

Problem Statement

Content creators and social media managers face multiple challenges:

- **Time-intensive content creation** requiring hours of planning, writing, and editing
- **Lack of data-driven insights** leading to poor engagement and reach
- **Difficulty maintaining consistency** across multiple platforms and posting schedules
- **Limited creative resources** for generating fresh, engaging content ideas
- **Complex multi-platform management** with different requirements and formats
- **Poor content performance** due to lack of optimization and timing insights

Solution Overview

An AI-first social media management platform that combines intelligent content generation, automated optimization, cross-platform publishing, and performance analytics to maximize engagement and minimize manual effort.

Success Metrics

- **User Engagement**: 40% increase in average post engagement rates
- **Time Savings**: 60% reduction in content creation time
- **User Retention**: 85% monthly active user retention rate
- **Content Volume**: 3x increase in content output per user
- **Platform Growth**: 100K+ active users within 12 months

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2. Market Analysis

Target Market Size

- **Total Addressable Market (TAM)**: $24.3B (Global Social Media Management Software Market)
- **Serviceable Addressable Market (SAM)**: $8.2B (AI-powered content creation tools)
- **Serviceable Obtainable Market (SOM)**: $150M (SMBs and individual creators)

Competitive Landscape

Competitor	Strengths	Weaknesses	Our Advantage
Hootsuite	Established brand, enterprise features	Limited AI capabilities, outdated UI	Advanced AI content generation
Buffer	Simple scheduling, good analytics	Basic content creation tools	Comprehensive AI-powered features
Later	Visual content calendar	Weak text content generation	Multi-modal AI content creation
Canva	Strong design tools	Limited social media management	Integrated management + creation

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3. User Personas

Primary Personas

1. Solo Content Creator (Sarah, 28)

- **Background**: Lifestyle blogger, Instagram influencer (50K followers)
- **Pain Points**: Spending 15+ hours/week on content creation, struggling with consistent posting
- **Goals**: Increase engagement, save time, grow follower base
- **Tech Savvy**: Medium-High

2. Small Business Owner (Mike, 35)

- **Background**: Local restaurant owner, manages social media himself
- **Pain Points**: No time for social media, doesn't know what content performs well
- **Goals**: Drive foot traffic, build brand awareness, automate posting
- **Tech Savvy**: Medium

3. Social Media Manager (Jessica, 26)

- **Background**: Manages 5-8 client accounts at a digital marketing agency
- **Pain Points**: Juggling multiple clients, proving ROI, creating diverse content

- **Goals**: Streamline workflow, improve client results, scale operations
- **Tech Savvy**: High

4. Enterprise Marketing Team (David, 32)

- **Background**: Marketing manager at mid-size SaaS company
- **Pain Points**: Coordinating team efforts, maintaining brand consistency, measuring performance
- **Goals**: Increase lead generation, maintain brand voice, improve team efficiency
- **Tech Savvy**: High

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4. Product Features & Requirements

4.1 Core Features (MVP)

Content Creation Engine

Priority: P0 (Must Have)

Feature	Description	User Story	Acceptance Criteria
AI Caption Generator	Generate engaging captions based on image/topic	As a creator, I want to generate captions quickly so I can post more frequently	- Support 5+ tone options - Generate 3 variants per request - 150+ character options
Visual Content Editor	Basic image editing with AI enhancements	As a user, I want to edit images without external tools	- Crop, resize, filter options - Background removal - Text overlay capability
Multi-Platform Publishing	Schedule and publish to Instagram, Facebook, Twitter, LinkedIn	As a manager, I want to post to all platforms simultaneously	- Support 4+ major platforms - Platform-specific formatting - Bulk scheduling

Content Management

Priority: P0 (Must Have)

Feature	Description	User Story	Acceptance Criteria
Content Calendar	Visual calendar for planning and scheduling	As a user, I want to see my content schedule at a glance	- Monthly/weekly/daily views - Drag-and-drop scheduling - Color-coded platforms
Content Library	Organize and store all content assets	As a creator, I want to reuse and organize my content efficiently	- Tag-based organization - Search functionality - Asset versioning
Template System	Pre-built templates for different content types	As a user, I want to maintain consistency across posts	- 20+ template categories - Custom template creation - Brand kit integration

Analytics & Insights

Priority: P1 (Should Have)

Feature	Description	User Story	Acceptance Criteria
Performance Dashboard	Track engagement, reach, and growth metrics	As a manager, I want to measure content performance	- Real-time data sync - 10+ key metrics - Export capabilities
AI Insights	Automated recommendations for improvement	As a user, I want actionable insights to improve performance	- Weekly insight reports - Performance predictions - Optimization suggestions

4.2 Advanced AI Features (Phase 2)

Content Generation & Optimization

Priority: P1 (Should Have)

Feature	Description	Technical Requirements	Success Metrics
Topic to Script Generator	Convert topics into full video/post scripts	- NLP model integration - Customizable templates - Multi-format output	- 80% user satisfaction - 30% time savings
Blog to Social Converter	Transform long-form content into social posts	- Content summarization AI - Platform-specific formatting - Key point extraction	- 90% accuracy rate - 50% adoption rate
Hashtag Strategy Generator	AI-powered hashtag recommendations with performance predictions	- Trending hashtag API - Performance prediction model - Niche-specific suggestions	- 25% engagement increase - 70% recommendation accuracy
Content Health Score	Rate content quality and engagement potential	- Multi-factor scoring algorithm - Real-time feedback - Improvement suggestions	- 85% prediction accuracy - 40% performance improvement

Media Creation & Enhancement

Priority: P1 (Should Have)

Feature	Description	Technical Requirements	Success Metrics
AI Video Summarizer	Extract highlights from long-form video content	- Video processing pipeline - Scene detection AI - Auto-captioning	- 60% time reduction - 95% accuracy rate
Text-to-Video Generator	Create short videos from scripts or ideas	- Video generation AI - Voiceover synthesis - Template library	- 70% user adoption - 4.5+ quality rating
AI Thumbnail Creator	Auto-generate high-performing thumbnails	- Image generation AI - A/B testing integration - Performance optimization	- 30% CTR improvement - 80% usage rate
Smart Image Editor	Advanced AI-powered image editing	- Background removal AI - Style transfer - Object manipulation	- 90% task completion - 85% user satisfaction

Trend Analysis & Discovery

Priority: P2 (Could Have)

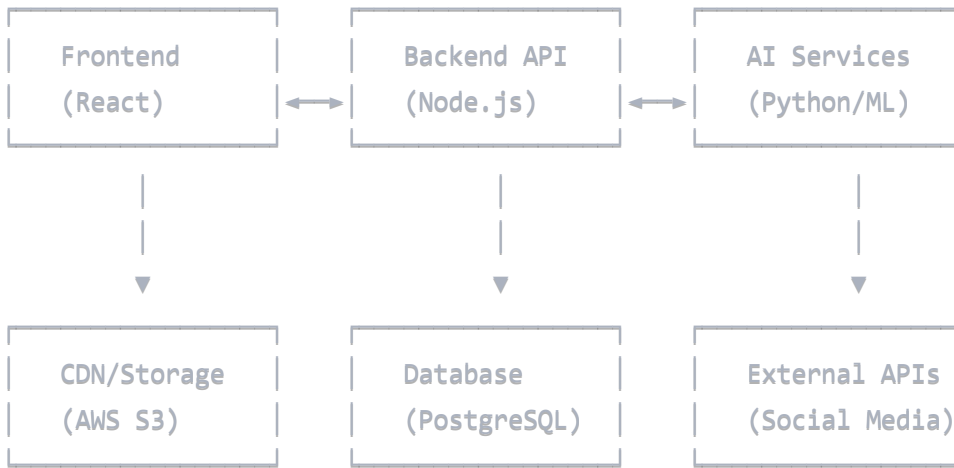| Feature	Description	Technical Requirements	Success Metrics
Real-Time Trend Detector	Identify trending topics and hashtags	- Social media APIs - Trend analysis algorithms - Real-time data processing	- 95% trend accuracy - 24hr update frequency
Competitor Analysis	Automated competitor content analysis	- Web scraping infrastructure - Content classification - Performance benchmarking	- 80% insight accuracy - 50% competitive advantage
Content Ideation Assistant	Daily personalized content suggestions	- User behavior analysis - Trend integration - Personalization engine	- 60% idea adoption - 40% engagement boost

Automation & Optimization

Priority: P2 (Could Have)

Feature	Description	Technical Requirements	Success Metrics
Auto Repurposing Engine	Transform content across different formats	- Content parsing - Format conversion - Quality preservation	- 5x content multiplication - 80% quality retention
Engagement Prediction	Predict post performance before publishing	- Machine learning models - Historical data analysis - Performance algorithms	- 85% prediction accuracy - 30% engagement increase
Post Timing Optimizer	AI-powered optimal posting time recommendations	- Audience behavior analysis - Platform algorithm insights - Time zone optimization	- 25% reach improvement - 90% recommendation accuracy

5. Technical Architecture

5.1 System Architecture

```
┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│   Frontend      │    │   Backend API   │    │   AI Services   │
│   (React)       │◄──►│   (Node.js)     │◄──►│   (Python/ML)   │
└─────────────────┘    └─────────────────┘    └─────────────────┘
         │                      │                      │
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┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│   CDN/Storage   │    │   Database      │    │  External APIs  │
│   (AWS S3)      │    │   (PostgreSQL)  │    │  (Social Media) │
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```

5.2 Technology Stack

Frontend

- **Framework**: React 18+ with TypeScript

- **State Management**: Redux Toolkit + RTK Query

- **UI Library**: Tailwind CSS + Headless UI

- **Build Tool**: Vite

- **Testing**: Jest + React Testing Library

Backend

- **Runtime**: Node.js 18+ with Express.js

- **Database**: PostgreSQL 14+ with Prisma ORM

- **Authentication**: JWT + OAuth 2.0

- **File Storage**: AWS S3 + CloudFront CDN

- **Queue System**: Redis + Bull Queue

AI/ML Services

- **Platform**: Python 3.9+ with FastAPI

- **ML Frameworks**: TensorFlow, PyTorch, Hugging Face

- **Vector Database**: Pinecone for embeddings

- **Content Generation**: OpenAI GPT-4, Claude, or self-hosted models

- **Image Processing**: Stability AI, DALL-E, or open-source alternatives

Infrastructure

- **Cloud Provider**: AWS (primary) with multi-region deployment

- **Containerization**: Docker + Kubernetes

- **CI/CD**: GitHub Actions

- **Monitoring**: DataDog + Sentry

- **Security**: AWS WAF + OAuth + Rate limiting

5.3 Data Models

Core Entities

```sql
Users
├── id (UUID)
├── email (unique)
├── subscription_tier
├── created_at
└── profile_data (JSON)


Content
├── id (UUID)
├── user_id (FK)
├── type (post, story, video, etc.)
├── platforms (array)
├── status (draft, scheduled, published)
├── content_data (JSON)
├── ai_metadata (JSON)
└── performance_metrics (JSON)


Social_Accounts
├── id (UUID)
├── user_id (FK)
├── platform
├── account_id
├── access_token (encrypted)
└── account_metadata (JSON)
```

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6. User Experience Design

6.1 User Journey Map

New User Onboarding (0-7 days)

1. **Discovery** → Sign up → Connect social accounts → Profile setup

2. **First Value** → Generate first AI content → Schedule first post → See engagement

3. **Habit Formation** → Daily content suggestions → Template usage → Analytics review

Power User Journey (30+ days)

1. **Bulk Creation** → Weekly content planning → Batch AI generation → Advanced scheduling

2. **Optimization** → Performance analysis → A/B testing → Strategy refinement

3. **Scaling** → Team collaboration → Advanced automation → Custom workflows

6.2 Key User Flows

Content Creation Flow

```
Landing → Topic Input → AI Generation → Content Review →
Platform Selection → Scheduling → Publishing → Analytics
```

Content Management Flow

```
Dashboard → Calendar View → Content Library → Template Selection →
Bulk Operations → Performance Review → Strategy Adjustment
```

6.3 Wireframe Structure

Main Dashboard

- **Header**: Navigation, user profile, notifications

- **Sidebar**: Quick actions, platform connections, recent content

- **Main Area**: Content calendar, performance overview, AI suggestions

- **Right Panel**: Upcoming posts, trending topics, quick tools

Content Creation Interface

- **Left Panel**: Content types, templates, AI tools

- **Center**: Content editor with real-time preview

- **Right Panel**: Platform-specific settings, scheduling options, AI suggestions

7. Business Model & Monetization

7.1 Pricing Strategy

Freemium Model

Tier	Price	Features	Target User
Free	$0/month	- 5 posts/month - 2 social accounts - Basic templates - Limited AI features	Individual creators testing the platform
Creator	$19/month	- 50 posts/month - 5 social accounts - Full AI suite - Analytics dashboard - Priority support	Solo creators and small businesses
Professional	$49/month	- 200 posts/month - 15 social accounts - Team collaboration - Advanced analytics - Custom templates - API access	Agencies and growing businesses
Enterprise	$149/month	- Unlimited posts - Unlimited accounts - White-label options - Advanced security - Dedicated support - Custom integrations	Large businesses and agencies

7.2 Revenue Projections (12 months)

Month	Free Users	Paid Users	MRR	ARR
1	500	50	$1,500	$18,000
3	2,000	300	$9,500	$114,000
6	8,000	1,200	$38,000	$456,000
12	25,000	4,000	$127,000	$1,524,000

Key Assumptions:

- 15% conversion rate from free to paid
- 5% monthly churn rate
- Average revenue per user (ARPU): $32/month

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8. Go-to-Market Strategy

8.1 Launch Phases

Phase 1: MVP Launch (Months 1-3)

- **Target**: Early adopters and beta testers
- **Channels**: Product Hunt, social media communities, influencer partnerships

- **Goal**: 1,000 users, product-market fit validation

Phase 2: Growth Phase (Months 4-8)

- **Target**: Broader creator and SMB market
- **Channels**: Content marketing, SEO, paid advertising, partnerships
- **Goal**: 10,000 users, $50K MRR

Phase 3: Scale Phase (Months 9-12)

- **Target**: Enterprise and agency market
- **Channels**: Sales team, enterprise partnerships, conference presence
- **Goal**: 25,000 users, $150K MRR

8.2 Marketing Channels

Content Marketing (40% of budget)

- **Blog**: SEO-optimized articles on social media marketing
- **YouTube**: Tutorial videos and case studies
- **Webinars**: Live training sessions and product demos
- **Templates**: Free downloadable resources and guides

Paid Advertising (30% of budget)

- **Google Ads**: High-intent keywords (social media management, content creation)
- **Facebook/Instagram Ads**: Lookalike audiences based on creator personas
- **LinkedIn Ads**: B2B targeting for agencies and enterprises
- **YouTube Ads**: Tutorial and demo videos

Partnership & Community (20% of budget)

- **Influencer Partnerships**: Collaboration with mid-tier creators
- **Tool Integrations**: Partnerships with Canva, Unsplash, Giphy
- **Community Building**: Discord server, Facebook groups, Reddit presence
- **Affiliate Program**: Revenue sharing with marketing agencies

Product-Led Growth (10% of budget)

- **Referral Program**: Credits for successful referrals

- **Free Tools**: Hashtag generators, content calendars

- **API & Integrations**: Enable third-party developers

- **User-Generated Content**: Showcase customer success stories

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9. Success Metrics & KPIs

9.1 Product Metrics

User Engagement

- **Daily Active Users (DAU)**: Target 40% of MAU

- **Monthly Active Users (MAU)**: Primary growth metric

- **Session Duration**: Average 25+ minutes per session

- **Feature Adoption**: 80% of users use AI features within 7 days

Content Performance

- **Content Creation Rate**: Average 10+ posts per user per month

- **Publishing Success Rate**: 95%+ successful posts

- **Engagement Improvement**: 30%+ increase in user's social media engagement

- **Time Savings**: 60%+ reduction in content creation time

9.2 Business Metrics

Revenue

- **Monthly Recurring Revenue (MRR)**: Primary revenue metric

- **Customer Lifetime Value (CLV)**: Target $400+

- **Customer Acquisition Cost (CAC)**: Target <$50

- **CLV:CAC Ratio**: Target 8:1 or higher

Growth

- **User Growth Rate**: 20%+ monthly growth

- **Conversion Rate**: 15%+ free to paid conversion

- **Churn Rate**: <5% monthly churn

- **Net Revenue Retention**: 110%+ for paid users

9.3 Operational Metrics

Technical Performance

- **System Uptime**: 99.9% availability

- **API Response Time**: <200ms average

- **AI Processing Time**: <10 seconds for content generation

- **Platform Integration Success**: 99%+ posting success rate

Support & Quality

- **Customer Satisfaction (CSAT)**: 4.5+ out of 5

- **Net Promoter Score (NPS)**: 50+ score

- **Support Response Time**: <4 hours average

- **Bug Resolution Time**: <24 hours for critical issues

10. Risk Assessment & Mitigation

10.1 Technical Risks

Risk	Impact	Probability	Mitigation Strategy
AI Model Costs	High operational costs could hurt margins	Medium	- Multi-provider strategy - Usage optimization - Tiered feature access
Platform API Changes	Social media platforms change APIs breaking integrations	High	- Multi-platform redundancy - Regular API monitoring - Direct partnerships
Scalability Issues	System performance degradation under load	Medium	- Microservices architecture - Auto-scaling infrastructure - Performance monitoring
Data Privacy	Regulations could limit data usage for AI	Medium	- Privacy-first design - Compliance framework - User consent management

10.2 Business Risks

Risk	Impact	Probability	Mitigation Strategy
Competitive Pressure	Large competitors copying features	High	- Patent key innovations - Focus on user experience - Community building
Market Saturation	Too many similar tools in market	Medium	- Unique AI differentiation - Niche market focus - Superior user experience
Economic Downturn	Reduced spending on marketing tools	Medium	- Freemium model - Essential feature focus - SMB market targeting
Regulatory Changes	AI regulations affecting content generation	Low	- Compliance monitoring - Ethical AI practices - Transparency features

10.3 User Adoption Risks

Risk	Impact	Probability	Mitigation Strategy
AI Quality Concerns	Users don't trust AI-generated content	Medium	- Quality assurance - Human review options - Transparency features
Learning Curve	Complex interface reduces adoption	Medium	- Intuitive UI/UX design - Comprehensive onboarding - Tutorial content
Integration Complexity	Difficult social media account setup	High	- Simplified OAuth flow - Clear instructions - Support documentation

11. Development Timeline & Milestones

11.1 MVP Development (Months 1-4)

Month 1: Foundation

- ☐ Technical architecture setup
- ☐ User authentication system
- ☐ Basic UI framework
- ☐ Social media API integrations (Instagram, Facebook)

Month 2: Core Features

- ☐ Content creation interface
- ☐ AI caption generation (basic)
- ☐ Content calendar
- ☐ Scheduling system

Month 3: Publishing & Management

- ☐ Multi-platform publishing
- ☐ Content library
- ☐ Basic analytics dashboard
- ☐ Template system

Month 4: Polish & Testing

- ☐ User testing and feedback integration
- ☐ Bug fixes and performance optimization
- ☐ Onboarding flow
- ☐ MVP launch preparation

11.2 Advanced Features (Months 5-8)

Month 5-6: AI Enhancement

- ☐ Advanced AI content generation
- ☐ Hashtag strategy generator
- ☐ Content health scoring
- ☐ Image editing tools

Month 7-8: Analytics & Optimization

- ☐ Advanced analytics dashboard
- ☐ Performance predictions
- ☐ A/B testing framework
- ☐ Automated insights

11.3 Scale & Enterprise (Months 9-12)

Month 9-10: Enterprise Features

- ☐ Team collaboration tools
- ☐ Advanced user management
- ☐ White-label options
- ☐ API development

Month 11-12: Advanced AI

- ☐ Video generation and editing
- ☐ Advanced content repurposing
- ☐ Competitor analysis
- ☐ Trend detection system

12. Resource Requirements

12.1 Team Structure

Development Team (8 people)

- **1 Engineering Manager**: Team leadership, technical decisions

- **2 Frontend Engineers**: React/TypeScript specialists

- **2 Backend Engineers**: Node.js/API development

- **2 AI/ML Engineers**: Python, machine learning models

- **1 DevOps Engineer**: Infrastructure, deployment, monitoring

Product Team (4 people)

- **1 Product Manager**: Feature planning, roadmap management

- **1 UX/UI Designer**: User experience, interface design

- **1 Data Analyst**: Analytics, user research

- **1 QA Engineer**: Testing, quality assurance

Business Team (5 people)

- **1 Marketing Manager**: Go-to-market strategy, campaigns

- **1 Content Creator**: Blog, tutorials, documentation

- **1 Sales Representative**: Enterprise sales, partnerships

- **1 Customer Success**: Support, onboarding, retention

- **1 Community Manager**: Social media, user community

12.2 Technology Costs (Monthly)

Service	Cost	Purpose
AWS Infrastructure	$2,000	Hosting, storage, CDN
AI API Costs	$3,000	OpenAI, Stability AI, etc.
Third-party Services	$1,500	Analytics, monitoring, tools
Social Media APIs	$500	Platform integrations
Development Tools	$800	GitHub, Figma, testing tools
Total	**$7,800**	Monthly operational costs

12.3 Funding Requirements

Seed Round ($750K - 12 months runway)

- **Team Salaries**: $480K (60%)

- **Technology Costs**: $94K (12%)

- **Marketing Budget**: $120K (16%)

- **Legal & Operations**: $56K (12%)

Series A ($2.5M - 24 months runway)

- **Team Expansion**: $1,500K (60%)

- **Technology & Infrastructure**: $400K (16%)

- **Marketing & Sales**: $500K (20%)

- **Operations & Contingency**: $100K (4%)

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13. Success Criteria & Exit Strategy

13.1 Success Milestones

6-Month Goals

- [ ] 5,000+ registered users
- [ ] $15K+ Monthly Recurring Revenue
- [ ] 4.5+ App Store rating
- [ ] 70%+ user retention after 30 days

12-Month Goals

- [ ] 25,000+ registered users
- [ ] $150K+ Monthly Recurring Revenue
- [ ] Series A funding secured
- [ ] Enterprise customer base established

24-Month Goals

- [ ] 100,000+ registered users
- [ ] $500K+ Monthly Recurring Revenue
- [ ] Market leadership in AI-powered social media tools
- [ ] International market expansion

13.2 Potential Exit Strategies

Strategic Acquisition (3-5 years)

Potential Acquirers:

- **Meta**: Integration with Instagram/Facebook Creator Studio
- **Adobe**: Addition to Creative Cloud suite
- **HubSpot**: Enhancement of marketing platform
- **Canva**: Expansion into social media management

Valuation Multiple: 8-12x ARR for SaaS companies

IPO Path (5-7 years)

Requirements:

- $100M+ ARR
- 40%+ growth rate
- Strong market position
- Proven unit economics

Management Buyout

Scenario: If growth plateaus but business remains profitable **Timeline**: 4-6 years **Structure**: Leveraged buyout with management team

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14. Appendix

14.1 User Research Summary

- **Survey Results**: 500+ creators surveyed about pain points
- **Interview Insights**: 50+ in-depth user interviews conducted
- **Competitive Analysis**: Detailed feature comparison with 10+ competitors
- **Market Research**: Industry reports and trend analysis

14.2 Technical Specifications

- **API Documentation**: Detailed endpoint specifications
- **Database Schema**: Complete data model documentation
- **Security Requirements**: Compliance and security measures

* **Performance Benchmarks**: Load testing and optimization targets

14.3 Legal & Compliance

* **Terms of Service**: User agreement and liability

* **Privacy Policy**: Data handling and user privacy

* **GDPR Compliance**: European data protection requirements

* **AI Ethics**: Responsible AI development guidelines

14.4 Financial Projections

* **Detailed P&L**: Monthly projections for 24 months

* **Cash Flow Analysis**: Revenue, expenses, and funding requirements

* **Sensitivity Analysis**: Best case, worst case, and most likely scenarios

* **Unit Economics**: Customer acquisition and lifetime value models

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