

# Project Deluge: The Surge Protocol

## Product Requirements Document (PRD)

### Executive Summary

**Project Vision:** Research and identify underlying factors that create barriers to mass AI tools adoption, then develop strategies to trigger a "surge" that breaks these barriers and enables widespread AI adoption.

**Deliverables:** Portfolio website with research findings, Tableau dashboards, and thought leadership content demonstrating AI research capabilities and insights.

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## 1. Project Overview

### 1.1 Problem Statement

Despite the rapid advancement of AI tools, mass adoption remains limited. The underlying factors creating resistance or blocks to widespread AI tool adoption are not well understood or documented. These barriers could include:

- Availability and accessibility issues
- Fear and mistrust of AI technology
- Lack of awareness or education
- Technical complexity and usability concerns
- Cost and resource constraints
- Regulatory and ethical concerns
- Cultural and organizational resistance

### 1.2 Project Objectives

#### Primary Goals:

- Identify and quantify key barriers to AI tool adoption
- Develop data-driven insights using AI tools for research
- Showcase AI research and data analysis capabilities
- Create a professional portfolio demonstrating AI proficiency

#### Secondary Goals:

- Establish thought leadership in AI adoption research
- Build a foundation for future business opportunities
- Develop expertise in AI-assisted research methodologies

### 1.3 Success Metrics

- **Data Quality:** Clean, accurate, and comprehensive datasets
  - **Visualization Quality:** Clear, insightful Tableau dashboards
  - **Research Depth:** Actionable insights and recommendations
  - **Portfolio Impact:** Professional presentation showcasing AI capabilities
  - **Content Engagement:** LinkedIn/Medium post engagement and feedback
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## 2. Research Scope & Methodology

### 2.1 Research Questions

1. What are the primary barriers preventing individuals from adopting AI tools?
2. How do barriers differ across demographics, industries, and regions?
3. What factors correlate with successful AI tool adoption?
4. What strategies could trigger a "surge" in AI adoption?

### 2.2 Data Sources & Collection Strategy

#### Phase 1 Approach (Weeks 1-2) - Secondary Research Focus:

- Industry reports and studies (Deloitte, McKinsey, PwC AI reports)
- Academic research papers (Google Scholar, ResearchGate)
- Market research data (Statista, Gartner, IDC)
- Government and organizational surveys (Pew Research, MIT studies)
- Social media sentiment analysis (Twitter, LinkedIn, Reddit discussions)
- News and media analysis (TechCrunch, Harvard Business Review)

#### Phase 2 Approach (Future) - Primary Research:

- Start with micro-surveys (LinkedIn polls, Twitter surveys)
- Informal interviews with network contacts
- Scale to formal survey if Phase 1 shows promising directions

## AI Tools Stack:

- **Research & Analysis:** Claude/GPT for literature review and synthesis
- **Website Development:** Replit or Firebase Studio (decision needed)
- **Presentations:** Gamma for presentation creation
- **Documentation:** Claude/GPT for writing and editing
- **Data Visualization:** Tableau (student account)
- **Version Control:** GitHub (considering GitHub Pages for hosting)

## 2.3 Target Research Segments

- **Individual Users:** Consumers, professionals, students
  - **Organizations:** Small businesses, enterprises, non-profits
  - **Industries:** Technology, healthcare, finance, education, retail
  - **Demographics:** Age groups, income levels, education levels
  - **Geographic:** Different regions/countries
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## 3. Deliverables Specification

### 3.1 Portfolio Website

#### Core Components:

- Executive summary of research findings
- Interactive data visualizations
- Methodology documentation
- Key insights and recommendations
- "Surge Protocol" strategy framework
- About section showcasing AI tool proficiency

#### Technical Requirements:

- Responsive design
- Professional UI/UX
- Fast loading times
- SEO optimized
- Embedded Tableau dashboards

## 3.2 Tableau Dashboards

### Required Dashboards:

#### 1. Barrier Analysis Dashboard

- Primary barriers by frequency and impact
- Demographic breakdowns
- Industry-specific barriers

#### 2. Adoption Factors Dashboard

- Success factors correlation analysis
- Adoption journey mapping
- Regional adoption patterns

#### 3. Surge Strategy Dashboard

- Strategic recommendations
- Impact projections
- Implementation roadmap

#### 4. Research Methodology Dashboard

- Data sources overview
- Sample sizes and demographics
- Research timeline and process

## 3.3 Content Creation

### LinkedIn Posts (3-5 posts):

- Key research findings
- AI tool recommendations
- Industry insights
- Personal learning journey

### Medium Articles (2-3 articles):

- Comprehensive research summary
  - Deep dive into specific barriers
  - The "Surge Protocol" strategy guide
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## 4. Technical Implementation

### 4.1 AI Tools Stack

#### Research & Analysis:

- ChatGPT/Claude for literature review
- Perplexity for fact-checking and validation
- AI survey tools (Typeform with AI features)
- Python with AI libraries for data analysis

#### Data Processing:

- AI-powered data cleaning tools
- Automated sentiment analysis
- Pattern recognition algorithms
- Statistical analysis with AI assistance

#### Content Creation:

- AI writing assistants for drafts
- AI-powered editing tools
- Image generation for visualizations
- AI presentation tools

### 4.2 Data Management

- Centralized data repository
  - Version control for datasets
  - Data quality validation processes
  - Privacy and ethics compliance
  - Backup and recovery procedures
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## 5. Project Timeline (14 Working Days) - Revised Approach

### Phase 1: Secondary Research Deep Dive (Days 1-8)

- **Days 1-3:** Comprehensive literature review using AI tools
- **Days 4-6:** Industry report analysis and data extraction

- **Days 7-8:** Social media sentiment analysis and trend identification

## **Phase 2: Analysis & Synthesis (Days 9-11)**

- **Days 9-10:** Data compilation and pattern analysis
- **Day 11:** Insight generation and "Surge Protocol" framework development

## **Phase 3: Visualization & Portfolio (Days 12-14)**

- **Day 12:** Tableau dashboard creation with secondary data
- **Days 13-14:** Website development and content creation

## **Website Platform Decision Matrix:**

### **Replit Advantages:**

- Integrated development environment
- Easy collaboration and sharing
- Built-in hosting
- Good for rapid prototyping

### **Firebase Studio Advantages:**

- Google ecosystem integration
- Robust backend capabilities
- Scalable architecture
- Professional deployment options

### **GitHub Pages Advantages:**

- Free hosting with custom domain
- Version control integration
- Simple deployment process
- Professional portfolio standard

**Recommendation:** Start with GitHub Pages for simplicity, use Replit for development if needed

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## **6. Task Breakdown & Prioritization**

### **High Priority (Must Have) - Revised**

1. **Secondary Research Foundation**

- Map existing AI adoption studies and reports
- Extract quantitative data from published research
- Identify data gaps that could be filled later with primary research

## **2. Data Synthesis & Analysis**

- Compile findings from multiple sources
- Identify common barriers and patterns
- Create evidence-based "Surge Protocol" framework

## **3. Core Visualization Development**

- Barrier frequency analysis from secondary data
- Industry/demographic breakdowns from existing studies
- Trend analysis over time (2020-2024)

## **Medium Priority (Should Have)**

### **4. Professional Portfolio Website**

- Clean, responsive design showcasing research methodology
- Embedded Tableau dashboards
- Research documentation and findings

### **5. Thought Leadership Content**

- LinkedIn posts highlighting key insights
- Medium article synthesizing research findings
- Gamma presentation for portfolio showcase

## **Low Priority (Future Scope)**

### **6. Primary Research Preparation**

- Survey question bank development
- Interview guide creation
- Network mapping for future outreach

### **7. Advanced Features**

- Interactive website elements
- Advanced Tableau features
- Video content or presentations

## **Survey Strategy - Overcoming the Fear:**

## **Start Small Approach:**

1. **Week 1:** Use LinkedIn polls (2-3 questions max) to test the waters
2. **Week 2:** Create a simple Google Form and share with immediate network
3. **Future:** Scale based on initial response and confidence gained

## **Sample Size Reality:**

- For portfolio purposes: 50-100 responses would be impressive
- For statistical significance: 200+ responses ideal but not required for Phase 1
- Focus on quality insights over quantity for initial showcase

## **Medium Priority (Should Have)**

### **4. Website Development**

- Professional portfolio site
- Research methodology documentation
- Interactive elements and navigation

### **5. Content Creation**

- LinkedIn post series
- Medium article drafts
- Executive summary document

## **Low Priority (Nice to Have)**

### **6. Advanced Analytics**

- Predictive modeling
- Correlation analysis
- Trend forecasting

### **7. Additional Visualizations**

- Interactive maps
- Animation and transitions
- Advanced filtering options

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## **7. Risk Management**

### **7.1 Potential Risks**



- **Data Quality Issues:** Insufficient or biased survey responses
- **Time Constraints:** 14-day timeline is ambitious
- **Technical Challenges:** Tableau integration or website development delays
- **Research Limitations:** Access to comprehensive data sources

## 7.2 Mitigation Strategies

- Start with secondary research to establish baseline
  - Use multiple data collection methods
  - Prepare simplified dashboard versions as backup
  - Focus on quality over quantity for initial deliverables
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## 8. Future Scope & Business Potential

### 8.1 Immediate Extensions

- Deeper industry-specific research
- International market analysis
- Longitudinal adoption tracking
- AI tool effectiveness studies

### 8.2 Business Opportunities

- Consulting services for AI adoption
  - Training and education programs
  - AI readiness assessment tools
  - Strategic advisory services
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## 9. Resources & Requirements

### 9.1 Tools & Platforms

- Tableau (for dashboards)
- Web development platform (Webflow/WordPress)
- Survey tools (Typeform/Google Forms)
- AI research tools (GPT, Claude, Perplexity)
- Data analysis tools (Python, Excel)

## 9.2 Budget Considerations

- Tableau license (if needed)
  - Survey distribution costs
  - Web hosting and domain
  - Premium AI tool subscriptions
  - Design and development resources
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## 10. Conclusion

Project Deluge: The Surge Protocol represents an ambitious research initiative that combines AI tool proficiency with meaningful market research. The project will demonstrate advanced capabilities in AI-assisted research, data analysis, and professional presentation while contributing valuable insights to the AI adoption landscape.

The tight timeline requires focused execution and strategic prioritization, but the deliverables will create a compelling portfolio piece that showcases both technical skills and business acumen in the rapidly evolving AI space.