



# SmartSocial

Final Deliverable

Emilie Whitewolf, Mason Proskin, Daniel Murtha

Letter of transmittal

Subject: Transmittal of SmartSocial Final Deliverable

Dear Dr. Jeff Ritchie,

I am pleased to submit the attached project, titled "*SmartSocial Final Deliverable*", which was prepared as part of a Capstone Research and Development course requirement.

This document contains the One-sheet, permissions, branding, backlog, and other crucial documents that pertain to SmartSocial. This was developed to present the project in an easy and digestible way.

I hope this report meets your expectations and provides the necessary insight. If you have any questions or require further information, please feel free to contact me at [edw001@lvc.edu](mailto:edw001@lvc.edu).

Thank you for the opportunity to work on this project.

Sincerely,

Emilie Whitewolf  
SmartSocial Project Manager

## Project One-Sheet

SmartSocial: AI-Powered Social Media Management Made Easy

### PITCH

SmartSocial is an all-in-one platform that empowers small businesses with features like AI-driven content creation, scheduling tools, and actionable analytics. SmartSocial turns social media into an effortless growth engine.

### VALUE PROPOSITION

Managing social media can be a daunting and time-consuming task for small businesses. SmartSocial addresses this challenge by offering an affordable, intuitive solution that integrates content creation, scheduling, and performance analytics. By leveraging AI, we save users time, ensure consistent branding, and provide actionable insights that drive engagement and results.

### PURPOSE

Our mission is to ease the burden of social media management for small business owners using a tiered subscription model. The platform encourages key behaviors, including: 1. Consistent Platform Usage: Relying on SmartSocial as a central hub for all social media management. 2. Content Personalization: Utilizing AI-powered tools to create brand-consistent and engaging content. 3. Data-Driven Decision-Making: Using AI-generated analytics to evaluate performance and refine strategies. SmartSocial Emilie Whitewolf, Mason Proskin, Daniel Murtha

## SCOPE

The prototype will focus on providing a streamlined experience for social media management across multiple platforms. Features include:

- **Onboarding:** A user-friendly setup process to link accounts, personalize AI preferences, and establish brand identity.
- **Scheduling:** Tools for creating and managing posts across platforms with flexible scheduling options.
- **AI Chatbot Analytics:** Interactive analytics that provide insights and recommendations via a chatbot interface.
- **Content Generation:** AI-powered tools for crafting posts, captions, hashtags, and templates tailored to the user's brand.
- **Optimization Suggestions:** Recommendations to improve social media performance based on data insights.

## FUNCTIONALITY HIGHLIGHTS

- **Onboarding Process:** Personalized account setup with AI preferences and branding.
- **Cross-Platform Scheduling:** Seamless management of content for various social media platforms.
- **AI-Driven Metrics:** Simplified performance analysis and insights delivered interactively.
- **Content Personalization:** AI-generated posts designed to reflect the brand's voice and identity.

## TECH STACK (PROTOTYPE)

Frontend: HTML/CSS

Backend: Javascript, SQL

Database: SQL database hosted through LVC's DMT Department

AI Framework: Integration of OpenAI APIs for chatbot analytics and content generation.

## THE TEAM

Emilie Whitewolf, Interaction Design & Digital Communications 25'

Mason Proskin, Digital Communications 25'

Daniel Murtha, Digital Communications 25'

## Permissions

Anything that our team did not create is listed here including AI use:

- Artlist.io: Grab the Goods – MooveKa
  - Used Royalty Free music from Artlist.io as background music for our Kickstarter Video.
- Otter.ai
  - Used when transcribing interviews/usability tests to organize thoughts, create actionable lists, and sort through comments for key statements or information.
- ChatGPT
  - Used in creating personas during the testing process for our prototyping.
  - Used in analyzing different collected data to identify trends, key information, and outliers.
  - Used in functional prototype as a trained chatbot model
  - Used in functional prototype with image and caption generation

## Brand Guideline

SmartSocial's basic branding information:



#381C5B



#845AA5



#FFFFFF



#414042



#231F20

Acumin Variable Concept, Default

*Acumin Variable Concept, Italic*

**GOBOLD, REGULAR**

## Project Backlog

This is the project backlog used throughout the semester. The purpose was to keep track of the necessary tasks to create a prototype, complete research, and design necessary promotions. It contains each task, when it was due, who it was assigned to, and if it was completed on time. This document was overseen by the project manager, Emilie Whitewolf.

DUE	TASK	ASSIGNED	ON TIME?
22-Jan	Revise Pitch	Emi	Y
22-Jan	Refine Research Questions	Dan & Mason	Y
26-Jan	Create a Test Plan	ALL	Y
31-Jan	Create Screener	Caleb	N
7-Feb	Contact Potential Interviewees	ALL	N
25-Feb	Perform 8 Interviews	ALL	N
28-Feb	Write Research Report	ALL	Y
DUE	TASK	ASSIGNED	ON TIME?
15-Feb	Backend Coding	Mason	N
15-Feb	Frontend Coding	Emi & Mason	Y
15-Feb	Design User Interface	Emi	Y
14-Mar	Create Research Goals II	Emi & Mason	Y
28-Mar	Create Usability Test Plan	ALL	Y
4-Apr	Finish Prototype v1	Mason	Y
14-Apr	Implement AI Chatbot	Emi	Y
21-Apr	Perform Usability Tests	ALL	N
23-Apr	Usability Test Results Report	ALL	Y
24-Apr	Revise Prototype (v2)	Mason	Y
DUE	TASK	ASSIGNED	ON TIME?
21-Apr	Create Poster	Emi	Y
22-Apr	Print Poster	Emi	Y
16-Apr	Write Video Script	Dan	N
21-Mar	Storyboard Video	Dan & Caleb	Y
17-Apr	Preparation for Video	Dan	Y
17-Apr	Film Video	Dan	Y
21-Apr	Rough Cut	Dan	Y
24-Apr	Video Editing/Postproduction	Dan	Y

## Supporting Documents

Project Links	pg. 9
Poster	pg. 9
Test Plan #1	pg. 10
Test Plan #2	pg. 15
Research Report #1	pg. 24
Research Report #2	pg. 35
Release Form	pg. 42
Consent Form	pg. 43

### Project Links:

[Project](#)

[Kickstarter Video](#)

[Interview Transcripts, Videos, and Signed Forms](#)

[Usability Test Transcripts, Videos, and Signed Forms](#)

### Poster:

## PROBLEM

Managing social media can be a daunting and time-consuming task for small businesses, often requiring consistent content creation, timely engagement with followers, and staying up-to-date with ever-changing platform algorithms—all while juggling the day-to-day responsibilities of running a business. Without the right tools or expertise, it's easy to feel overwhelmed or fall behind in maintaining a strong online presence. This can lead to missed opportunities for growth, reduced customer engagement, and difficulty standing out in a crowded digital landscape. For many small business owners, finding an efficient and effective way to manage social media is not just helpful—it's essential for long-term success.



## SOLUTION

SmartSocial is an all-in-one platform that empowers small businesses to take strides towards their social media goals with AI-driven content creation, scheduling tools, and actionable analytics. SmartSocial turns social media into an effortless growth engine with access to all accounts. Our mission is to ease the burden of social media management for small business owners using a tiered subscription model.

- Testimonies from Researched Users -

*"Going into it, I thought it was just going to help me post better, but it was a lot more interactive, which I enjoyed. It made the process easier and more straightforward."*

*"The Generate feature is easy and simple. You upload the image or video, write your caption, hit some keywords, and assign it to a campaign. It's a pretty good, simple way to get posts out."*



# SMARTSOCIAL

"The most valuable metric is your time."

## THE TEAM

Emilie Whitewolf Project Manager

Mason Proskin Developer

Daniel Murtha Videographer

## THE BRAND

#381c5b

#845aa5

#ffffff

#414042

#231f20

Acumin Variable Concept, Default  
Acumin Variable Concept, Italic  
**GOBOLD, REGULAR**

## FEATURES

- AI-POWERED ANALYTICS** ✔  
SmartSocial provides a metrics dashboard where users can see how their recent posts performed. Likes, comments, views, shares, etc. across all platforms are accessible here. The metrics dashboard also contains an AI chatbot built to provide suggestions and answer questions based on the user's post performance.
- ALL-IN-ONE CONTENT GENERATION** ✔  
The web app includes an AI content generator that creates both visual and text content based on prompts given by the user and the user's brand. The generator utilizes brand colors, fonts, and logos to ensure it produces high quality content that will perform well on Social Media.
- AUTOMATED POSTING SCHEDULE** ✔  
The web app includes an AI content generator that creates both visual and text content based on prompts given by the user and the user's brand. The generator utilizes brand colors, fonts, and logos to ensure it produces high quality content that will perform well on Social Media.

## SmartSocial Test Plan #1

## Project Overview

Managing social media can be a daunting and time-consuming task for small businesses. SmartSocial addresses this challenge by offering an affordable, intuitive solution that integrates content creation, scheduling, and performance analytics. By leveraging AI, we save users time, ensure consistent branding, and provide actionable insights that drive engagement and results. Built on a modern tech stack including React.js, Node.js, MongoDB, and OpenAI APIs, SmartSocial transforms social media into an effortless growth engine, helping small businesses enhance their online presence and reach their audience effectively.

Our mission is to ease the burden of social media management for small business owners using a tiered subscription model. The platform encourages key behaviors, including:

1. **Consistent Platform Usage:** Relying on SmartSocial as a central hub for all social media management.
2. **Content Personalization:** Utilizing AI-powered tools to create brand-consistent and engaging content.
3. **Data-Driven Decision-Making:** Using AI-generated analytics to evaluate performance and refine strategies.

## Research Goals

Research Question	Research Goal
What goals do users expect to accomplish using this product?	Develop and optimize methods to streamline and automate the content generation process, enhancing efficiency, quality, and scalability while reducing manual effort and resource consumption.
What features add value to the users through this service?	What specific features of the content generation service provide the most value to users in terms of efficiency, usability, and overall satisfaction?
What kind of subscription model is more valuable than a flat rate?	Explore and evaluate alternative subscription models for the content generation service, identifying the most valuable options beyond a flat rate in terms of user satisfaction, engagement, and long-term retention.
What levels of functionality are going to help separate the freemium and paid tiers with a subscription model?	Identify and define the key functionalities that differentiate the freemium and paid tiers of the subscription model, ensuring that each tier offers

	clear value to users while incentivizing upgrades and maintaining a balanced user experience.
How can we display metric data to users in an easy to understand manner?	What are the most effective methods for displaying metric data to users in a clear, intuitive, and actionable way, ensuring accessibility and ease of understanding across varying levels of user expertise?

**Logistics**

Due to the inaccessible nature of our target customer segment—small business owners who use social media to promote their business--the interviews will be conducted online. We plan to use a combination of Teams and Otter.ai to hold and record the interviews: Teams will easily host the interviewee, and Otter.ai will record transcripts of each interview. In addition to the AI transcript, we will also take notes by hand. We conduct each interview with a single interviewer, who will ask a series of questions, and one observer to take notes.

**Methods & Rationale**

- User Interviews
  - Interviews provide detailed insights into user needs, challenges, and preferences. They allow for follow-up questions, ensuring a deep understanding of user motivations and pain points. Using a standardized interview guide ensures consistency and reliability across sessions. Questions are carefully crafted to align with research goals, focusing on key features like content creation, metric display, and subscription models.
- Competitive Analysis
  - Analyzing competitors highlights strengths, weaknesses, and market gaps, ensuring SmartSocial offers unique value. Consistent benchmarking of features, pricing models, and metric tools provides actionable insights to refine the platform and differentiate it from competitors.

**Relevant Participants**

We will be performing our research first with interviews. For this first round of research, we aim to interview small business owners who spend an inconvenient amount of time on social media because they will be able to give us feedback most relevant to our research goals. We eradicate potential participants if they outsource their social media, or do not currently use social media to advertise their business. This is because they presumably do not know anything about social media marketing and therefore will not provide useful feedback at this stage in development.

### Research Participant Screener

1. Do you own a business?
  - a. Yes
  - b. *No (eradicate)*
2. What age group do you fall into?
  - a. *Under 18 (eradicate)*
  - b. 18-25
  - c. 26-35
  - d. 36-45
  - e. 46-55+
3. How many employees work at your company?
  - a. Sole Proprietor
  - b. 1-10
  - c. 10-20
  - d. *20+ (eradicate)*
4. Do you use social media for your business?
  - a. Yes
  - b. *No (eradicate)*
5. Do you outsource your digital marketing?
  - a. *Yes (eradicate)*
  - b. No
6. Do you personally manage your social media pages?
  - a. Yes
  - b. No
7. (If NO): Do you have a delegated employee(s) for social media?
  - a. Yes
  - b. *No (eradicate)*
8. How many hours per week do you spend generating content for social media?
  - a. 0 hours (eradicate)

- b. 1-5 hours
  - c. 5-10 hours
  - d. 10+ hours
9. OPEN-ENDED: Explain what your business does and why you work there.
- a. (Check potential participants articulation to determine if they should be eradicated or tested on)

## **Interview Script**

### *Introduction*

1. Greet the participant and introduce everyone
2. Explain the purpose
  - a. “We are conducting this study to understand how users interact with Smart Social, a social media management tool, to improve its usability and effectiveness. Your feedback will help us refine the platform.”
3. Set expectations
  - a. “The session will last about an hour. There are no right or wrong answers—please be honest and think aloud as you interact with the tool. If anything is unclear, let us know. You can leave at anytime throughout this interview.”
4. Obtain consent
  - a. “With your permission, we’d like to record this session for analysis. Your responses will remain confidential and used solely for research purposes. You can stop at any time. Do we have your consent to proceed?”
  - b. Sign consent form.

### *Pre-Test Questions*

1. Tell me about your business.
2. Can you walk me through how you currently manage social media content?
3. What platforms do you use, and how do you decide which ones to focus on?
4. Can you describe your process for scheduling and analyzing social media posts?
5. What are your biggest challenges in social media management?

### *Usability Tasks*

1. Creating a Post
  - a. "Let’s say you need to generate a post and then schedule it. Please go ahead and do that while thinking aloud."

2. Analyzing Metrics
  - a. “How would you check the performance of a post?”

### *Post-Test Questions*

1. Tell me about your experience with other social media management systems.
2. How did your experience with Smart Social compare to what you expected?
3. What aspects did you find most useful or enjoyable?
4. Were there any moments when you felt confused or stuck? Can you describe what happened?
5. On a scale of 1-10, how likely are you to integrate Smart Social into your workflow? Why?
6. Would you recommend Smart Social to others? Why or why not?
7. Is there anything you feel we didn't ask that would be important to know?

### *Closing & Thanks*

- “Thank you again for your time and valuable feedback! Your insights will help us refine Smart Social to better serve users like you.”
- “If you have any additional thoughts after this session, feel free to reach out.”

## SmartSocial Test Plan #2

### I. *Site to be tested*

- a. We are testing the SmartSocial web application for usability. The purpose of this application is to streamline the process of social media management for small business owners with three core features including an Automated Posting Calendar, an AI-powered analytics dashboard, and a customizable AI Content Generator.

### II. *User group*

- a. Single Business Owners (sole proprietors) and Small Businesses that cannot afford or don't have social media marketers/marketing team - In our latest round of research, we found that solopreneurs/sole proprietors and others in small businesses that can't afford or don't have social media marketing were often completely overwhelmed by the time and resource consuming process of content creation, posting, and metric tracking. Often times this led to bad returns on investment (ROI), lack of understanding of how posts perform, and how to make them better, low engagement, and inconsistent posting schedule.

### III. *User Profile*

- *Developing a persona increases the effectiveness and detail of a usability test plan by ensuring that testing scenarios accurately reflect real user needs, behaviors, and pain points. By grounding usability tests in a well-researched persona, we can craft realistic scenarios that mirror the challenges users face, such as struggling with inconsistent posting or feeling overwhelmed by analytics. Personas help create usability tests that not only measure functionality but also whether the product truly meets user needs.*

- a. *Persona: Lisa Moreno, Handmade Soap Business Owner*

- b. Demographics:

- i. Age: 37
- ii. Location: Austin, Texas
- iii. Business Type: Small handmade soap and skincare brand
- iv. Social Media Use: Primarily Instagram and Facebook, considering TikTok

- c. Background:

- i. Lisa runs a small handmade soap business from her home. She sells her products online and at local markets, relying heavily on social media to attract customers. While she knows posting regularly is

important, social media feels like a full-time job she doesn't have time for. Between crafting products, packaging orders, and answering customer inquiries, marketing often takes a backseat. She frequently feels behind on posting and has no clear strategy for what works best.

d. Pain Points:

- i. Lisa finds content creation exhausting and time-consuming. She often forgets to post and scrambles to put together last-minute content, leading to inconsistent engagement. She rarely checks analytics because they feel too complicated and doesn't know how to measure whether her efforts are paying off. She wants to improve her social media presence but feels stuck, unsure of what to post or when.
- ii. In our research, one participant echoed this frustration: "We don't have an ongoing schedule; we just post whenever something notable happens." Another admitted, "I don't analyze my social media. I check website traffic, but I have no idea what's working on LinkedIn."

e. Goals:

- i. Lisa wants to grow her online sales and build a loyal customer base. She needs a reliable, easy-to-use tool that helps her create engaging content quickly and post consistently without adding more stress to her busy schedule. She also wants to understand which posts perform well so she can refine her strategy.
- ii. A participant in our research highlighted this need, saying: "If I could generate more than one post here and check off multiple platforms, that would be great."

f. Tech Preferences:

- i. Lisa prefers intuitive tools that require little setup and learning. She doesn't have time to dive into complex analytics, so she needs clear, straightforward insights. She wants AI-generated content but worries that it won't fully capture the personal, handmade feel of her brand. She also wishes she could automate scheduling so that her social media stays active even when she's busy making products.

IV. Test Goals & Questions:

- *Our research is centered around three goals to figure out how well our system solves our user's problems. The goals have a total of five specific research questions, each with a task and scenario for testing, that test the effectiveness of our system in relation to our goals.*

- a. GOAL: Our service must streamline the content generation process via ease-of-use and intuitiveness.
  - i. How intuitive is the generate page?
- b. GOAL: Our service must provide helpful and accurate metric analysis.
  - i. How effectively does the analysis page display data?
  - ii. How effective is the AI chatbot?
- c. GOAL: Our service must ensure users feel confident and secure.
  - i. How effectively does the onboarding process communicate account security?
  - ii. How effectively does the calendar interface provide a sense of control for the user?

#### V. Scenarios & Tasks by Question

- *To best test our system, five tasks and scenarios have been developed to test the effectiveness, user satisfaction, and user ease of use of SmartSocial. The scenarios were crafted as realistic goals to prompt the user to take more control of their responses. This allows the user to feel as if they are using the system for a real task, rather than for a usability test.*
- a. How effectively does the onboarding process communicate account security?
  - i. SCENARIO: “You’re interested in creating an account for SmartSocial, how would you go about doing that?”
  - ii. TASK: Follow the onboarding process to create an account.
  - iii. METRICS:
    - 1. Task Completion
    - 2. Perceived User Satisfaction
    - 3. Perceived Ease of Use
- b. How intuitive is the generate page?
  - i. SCENARIO: “You are struggling to create content for your Instagram page. You are about to launch a new product and want your content to announce it. How would you go about creating new content through SmartSocial?”
  - ii. TASK: Navigate to the Generate Page and create a new post.
  - iii. METRICS:
    - 1. Task Completion
    - 2. Perceived User Satisfaction
    - 3. Perceived Ease of Use

- c. How effectively does the calendar interface provide a sense of control for the user?
  - i. SCENARIO: “You would like to schedule three posts for the upcoming week. With the product launch content you generated, schedule three future posts.”
  - ii. TASK: Schedule posts on the Posting Calendar.
  - iii. METRICS:
    - 1. Task Completion
    - 2. Perceived User Satisfaction
    - 3. Perceived Ease of Use
- d. How effectively does the analysis page display data?
  - i. SCENARIO: “You recently posted a series of product launch posts on Instagram, and you want to check the engagement data. How would you track how the campaign is doing?”
  - ii. TASK: Navigate to the Analytics page. Find out how many followers you received after your last post.
  - iii. METRICS:
    - 1. Task Completion
    - 2. Perceived User Satisfaction
    - 3. Perceived Ease of Use
  - iv. FOLLOW-UP QUESTIONS:
    - 1. What kinds of social media analytics are the most valuable to your business? Pick 3:
      - a.
- e. How effective is the AI chatbot?
  - i. SCENARIO: “Your recent posts aren’t doing as well as you want. You suspect it is because you’re posting at the wrong times. How would you look for recommendations on what to do better?”
  - ii. TASK: Ask the chatbot when the best times to post are.
  - iii. METRICS:
    - 1. Task Completion
    - 2. Perceived User Satisfaction
    - 3. Perceived Ease of Use

## VI. Methods:

- a. This usability test will be conducted in person by two group members. One will facilitate the test, the other will take notes. We will use Otter.ai to record a transcript and a mobile phone and a tripod to capture video of the test. The

facilitator is in-charge of setting up the SmartSocial website on a computer for the tester to use. The notetaker is in-charge of setting up the camera and Otter.ai.

#### VII. Data:

- *We are collecting both qualitative and quantitative data, although mostly qualitative, as that data will give us a deeper understanding of how users interact with our system.*
  - a. Qualitative Data
    - i. Perceived User Satisfaction
    - ii. Perceived Ease of Use
  - b. Quantitative Data
    - i. Task Completion

#### VIII. Analysis:

- a. We intend to analyze the collected data using a combination of generative AI and manual combing. We plan to use thematic analysis, which includes identifying recurring patterns in the data. This could be frequently appearing thought processes, problems, or even feature popularity.

### Research Participant Screener

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1. Do you own a business?
  - a. Yes
  - b. *No (conclude)*
2. Whether you use it or not, how important is social media to your business?
  - a. *0: Not Important (conclude)*
  - b. *1 (conclude)*
  - c. *2 (conclude)*
  - d. 3
  - e. 4
  - f. *5: Extremely Important*
3. What age group do you fall into?
  - a. *Under 18 (conclude)*
  - b. 18-25

- c. 26-35
  - d. 36-45
  - e. 46-55+
4. How many employees work at your company?
- a. Sole Proprietor
  - b. 1-10
  - c. 10-25
  - d. 25+ (*conclude*)
5. Are you available during the second week of April for an hour-long usability test?
- a. Yes
  - b. No (*conclude*)

### Usability Test Script

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Facilitator instructions are highlighted in **pink**. These are not to be read aloud. Start by setting up the testing room, ensuring that the computer running SmartSocial is screen recording, the camera recording the participant is set up, Otter.ai is running, and that the note taker has all of their materials (laptop, document open, etc.).

#### *Introduction/Release Forms*

Good morning/afternoon. My name is [facilitator name] and I will be taking you through today's session. This is [note taker name], who will be taking notes, and this is [observer name], who will be observing. We are students at Lebanon Valley College taking the Capstone Research and Development class through which we are collecting data to explore how different small business owners interact with a social media management system called SmartSocial. The goal of today's session is to define strengths and weakness of the SmartSocial system. Thank you so much for being here today.

Firstly, we would like to video, and audio record this session to review later. We will not share your name or any other identifying information with anyone outside of the group. Do I have your consent to record this session and utilize the recordings for further examination?

- a. Yes
  - a. Great! I'm going to have you sign this release form as a written form of consent. (**Have the participant sign the forms attached to the back of this document**)

b. No (conclude)

- a. I'm sorry, but without your consent, we must stop the session here. Thank you so much for your time.

*Informed Consent*

Before we begin, we want you to know that your participation is entirely voluntary. You may leave this session at any time for any reason. Throughout the test, you will not be exposed to any known risks. We are simply observing and taking notes. Remember, this is a test of the SmartSocial system, not you. There are no right or wrong actions or answers. Any notes or recordings taken during this session will only be viewed by the students in our group and our professor.

We will start by asking you a few questions, then we will guide you through a few activities on SmartSocial, and finally end with a few more questions. If you have questions or concerns, feel free to ask at any time during the test.

While performing the tasks, we encourage you to “think out loud,” as it will help our understanding of how SmartSocial is being utilized.

If you have no further questions, we will have you sign this consent form. (Have the participant sign the consent form attached at the back of this document)

*Pre-test Questions*

1. What does your business do?
2. Tell me about your experience with social media management.
3. How often do you post on social media regarding your business?
4. How much time, if any, do you spend on creating content for your social media channels?
5. What are your goals for your business's social media presence?

SCENARIO 1:

- “You're interested in creating an account for SmartSocial, how would you go about doing that?”
- **TASK: Follow the onboarding process to create an account.**

## SCENARIO 2:

- “You recently posted a series of call to actions on Instagram, and you want to check the engagement data. How would you track how the campaign is doing?”
- **TASK: Navigate to the Analytics page. Find out how many followers you received after your last post.**

## SCENARIO 3:

- “Your recent posts aren’t doing well. You suspect it is because you’re posting at the wrong times. How would you look for recommendations on what to do better?”
- **TASK: Ask the chatbot when the best times to post are.**

## SCENARIO 4:

- “You are struggling to create fresh content for your Instagram page. How would you go about creating a new post through SmartSocial?”
- **TASK: Navigate to the Generate Page and create a new post.**

## SCENARIO 5:

- “You would like to schedule three posts for the upcoming week. Using the call-to-action campaign and recommendations you got for when to post during the day, schedule three future posts.”
- **TASK: Schedule posts on the Posting Calendar.**

*Post-test Questions*

1. Tell me about your favorite part of the SmartSocial system?
2. Of everything we talked about today, which features are the most relevant to your workflow regarding social media?
3. Would you integrate this system into your workflow?
4. Do you have any other thoughts?

*Conclusion*

Thank you so much for your time and participation. The test is now over! If you have any other questions, concerns, thoughts, etc. you are welcome to reach out to me at [edw001@lvc.edu](mailto:edw001@lvc.edu). You can leave.

# Research Report #1

Managing social media can be a daunting and time-consuming task for small businesses. SmartSocial addresses this challenge by offering an affordable, intuitive solution that integrates content creation, scheduling, and performance analytics. By leveraging AI, we save users time, ensure consistent branding, and provide actionable insights that drive engagement and results. Built on a modern tech stack including React.js, Node.js, MongoDB, and OpenAI APIs, SmartSocial transforms social media into an effortless growth engine, helping small businesses enhance their online presence and reach their audience effectively.

Our mission is to ease the burden of social media management for small business owners using a social media dashboard web application that follows a tiered subscription model. The platform encourages key behaviors, including:

1. **Consistent Platform Usage:** Relying on SmartSocial as a central hub for all social media management.
2. **Content Personalization:** Utilizing AI-powered tools to create brand-consistent and engaging content.
3. **Data-Driven Decision-Making:** Using AI-generated analytics to evaluate performance and refine strategies.

To ensure that SmartSocial solves problems and meets user expectations, we conducted research via a series of interviews with members of our primary customer segment: small business owners who use social media to promote their business. We chose to use interviews because they can provide detailed insights into user needs, challenges, and preferences. We also gathered data about ease-of-use, user expectations, features, etc.

This report serves as a method to communicate our findings.

## RESEARCH GOALS

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With this research, we aimed to adhere to the following goals:

1. **Develop and optimize methods to streamline and automate the content generation process, enhancing efficiency, quality, and scalability while reducing manual effort and resource consumption.**

- a. Question: What goals do users expect to accomplish using this product?
2. What specific features of the content generation service provide the most value to users in terms of efficiency, usability, and overall satisfaction?
  - a. Question: What features add value to the users through this service?
3. Explore and evaluate alternative subscription models for the content generation service, identifying the most valuable options beyond a flat rate in terms of user satisfaction, engagement, and long-term retention.
  - a. Question: What kind of subscription model is more valuable than a flat rate?
4. Identify and define the key functionalities that differentiate the freemium and paid tiers of the subscription model, ensuring that each tier offers clear value to users while incentivizing upgrades and maintaining a balanced user experience.
  - a. Question: What levels of functionality are going to help separate the freemium and paid tiers with a subscription model?
5. What are the most effective methods for displaying metric data to users in a clear, intuitive, and actionable way, ensuring accessibility and ease of understanding across varying levels of user expertise?
  - a. Question: How can we display metric data to users in an easy-to-understand manner?

## METHODS

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### Data Collection:

We collected the data through semi-structured interviews with a screened group of small businesses owners. We selected the interviewees based on their business sizes & use of social media for that business. We used a common interview script across all interviews to ensure that all answers would be consistent with what is expected. We covered key areas from our research goals, including social media habits, challenges they face and their feedback on SmartSocial as a whole.

### Data Analysis:

To analyze the data, we used a combination of AI and manual processing to discuss overall themes found within the interview transcripts. This involved the process of creating codes for the data using AI, then refining those codes to better reflect the data we were looking to collect. After we had the refined codes, we used them to identify things that were common

throughout all of the interviews we conducted. This allowed us to take the data we received from the interviews and turn it into evidence-based recommendations for us to work from.

## RESULTS

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We decided to categorize the results using our Research Goals to aid in data digestion and comprehension. We understand that this process is a form of analysis, so we kept it barebones: quotes sorted by corresponding goals.

1. Develop and optimize methods to streamline and automate the content generation process, enhancing efficiency, quality, and scalability while reducing manual effort and resource consumption.
  - *"The generation part was something that if you can get that secret sauce going, that's definitely a great value proposition. I haven't found anything else that could actually generate content."*
  - *"The problem really from a scheduling standpoint isn't the schedule. It's developing the content. We can put placeholders down like we should have content on this day, but if we don't get that content developed, that doesn't really help much."*
  - *"A lot of your time has to be spent making the content and creating the content as well. There's tedious things behind the scenes that a lot of people don't see, like pre-production, post-production, editing, ideation, and just manual things such as posting."*
  - *"If you know, the biggest thing is how much it streamlines. I think the biggest value proposition is how much it can streamline the generation of unique and interesting content for a particular content marketing goal."*
  - *"A lot of the scheduling apps are like—you make all the posts and then schedule them, but it's not all done in one place. And as you schedule things, sometimes you put placeholders for things you have to go back and create."*
  - *"It would be really helpful for a small business owner to not just see numbers but to have a benchmark comparison to understand how their content performs against others."*
  - *"Since it's already generating some of the content for you, it could basically just do that for you—schedule a post every day or every three days without needing manual input."*

2. What specific features of the content generation service provide the most value to users in terms of efficiency, usability, and overall satisfaction?
  - *"Well, the generation would be the most useful, but I think it is always enjoyable to kind of look at the stats."*
  - *"The Generate feature is easy and simple. You upload the image or video, write your caption, hit some keywords, and assign it to a campaign. It's a pretty good, simple way to get posts out."*
  - *"Especially just for both generating the content and then being able to pull that content into a schedule pretty quickly and then walk away."*
  - *"If I could generate more than one post here, and if it gave me that option up front—like where do you want to generate your posts?—and I could check off multiple platforms, that would be great."*
  - *"Most scheduling apps, you make all the posts and then schedule them, but it's not all done in one place. Sometimes you put placeholders for things you have to go back and create."*
  - *"Since it's already generating some of the content for you, it could basically just do that for you—schedule a post every day or every three days without needing manual input."*
  - *"Going into it, I thought it was just going to help me post better, but it was a lot more interactive, which I enjoyed. It made the process easier and more straightforward."*
  - *"I was confused at first because I didn't know what the AI features had to offer. Maybe more explanation up front would help."*
  
3. Explore and evaluate alternative subscription models for the content generation service, identifying the most valuable options beyond a flat rate in terms of user satisfaction, engagement, and long-term retention.
  - *"Well, for one, we're not, I'm not sure we're a big enough operation in terms of, like, volume. And then it becomes like a financial thing, like whether or not it makes sense financially to pay for software if we can't handle the if we build it up and we can't handle the influx of new business."*
  - *"I think the Generate feature is it's easy and simple... And then, like, I think the Analyze feature would be very useful once you start getting content out to see what people are engaging with."*
  - *"Maybe there could be different pricing tiers for those who only need basic content generation versus those who want deeper analytics and automation."*

- *"Can you tell me about your experience with other social media management systems? I know you briefly talked about Hootsuite and Sprout. Maybe dive in more to the problems you had with them and maybe what you would look for in something better."*
  - *"Well, the problems were all about, you know, having enough content. Really, they're all about scheduling and also about, you know, analysis which is great, but..."*
  - *"For me, it was the easy use. I know, like, I'm busy, there's people who are also extremely busy. The most valuable metric for someone's day is their time they have available. So if there's a way that you can optimize your scheduling and your timing to get more stuff done, then why would you not want to use that?"*
  - *"I just wish that in that last one where I hit submit, I would have the option to like, instead of just connecting my Instagram, I could connect my TikTok and my Twitter and my whatever else I have, and be able to just be like... that would be sick."*
4. Identify and define the key functionalities that differentiate the freemium and paid tiers of the subscription model, ensuring that each tier offers clear value to users while incentivizing upgrades and maintaining a balanced user experience.
- a. *"I think the Generate feature is easy and simple... You upload the image or video, write your caption, hit some keywords, and assign it to a campaign. It's a pretty good, simple way to get posts out."*
  - b. *"For me, it was the easy use... The most valuable metric for someone's day is their time they have available. If there's a way that you can optimize your scheduling and your timing to get more stuff done, then why would you not want to use that?"*
  - c. *"I think the Analyze feature would be very useful once you start getting content out to see what people are engaging with."*
5. What are the most effective methods for displaying metric data to users in a clear, intuitive, and actionable way, ensuring accessibility and ease of understanding across varying levels of user expertise?
- a. *"Seems easy on the analytics dashboard here, I would assume it'd be right here. When it's posted, I can kind of click and then see everything right here and get my metrics and everything like that."*
  - b. *"Can I set up what key performance indicators I'm most interested in? From a B2B standpoint, it's not all that important, but for e-commerce, the key concern is whether posts are driving sales or visits to an Etsy store."*

- c. *"I'd like to see upcoming scheduled posts in the same dashboard, along with AI-driven recommendations, like 'instead of posting on Sunday, maybe you should post on Monday.'"*
- d. *"It would be helpful to see a summary of past performance but also recommendations on what to change for future posts."*
- e. *"The most valuable metric to any social media platform is how long someone watches. So I go into engagement and look at the average view duration... I analyze retention rates, spikes, and drop-offs to see what keeps people watching."*

## ANALYSIS

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The research confirms that small business owners seek an easy-to-use platform that automates content creation and provides clear insights into post-performance. The findings indicate:

### 1. **Unstructured Posting - Lack of a Defined Content Strategy**

- o Participants expressed a need for structured content planning to maintain audience engagement and consistency. Without a defined posting strategy, users struggle to sustain online visibility.
- o For example, one participant mentioned, *"We don't have an ongoing schedule; we just post whenever something notable happens."* Another echoed this sentiment, saying, *"I try to post four times a month, but usually it ends up being three, and there's no set day or time."*
- o These responses suggest that businesses require automated scheduling tools and post reminders. SmartSocial can address this by integrating AI-driven content planning features that suggest optimal posting times and maintain consistency.

### 2. **Limited Platform Usage - Preference for Specific Social Media Platforms**

- o Businesses tend to focus on platforms that offer direct audience engagement, such as LinkedIn and Instagram, while avoiding others like Facebook.

- o One user stated, *“I primarily use LinkedIn because that’s where my audience is. I don’t bother with Facebook anymore.”* Another commented, *“We use Instagram, Facebook, and Twitter, but we don’t have a specific focus on any one platform.”*
- o This highlights a need for SmartSocial to prioritize seamless LinkedIn and Instagram integration while allowing users to customize platform preferences. By expanding multi-platform functionality, businesses can tailor their marketing efforts more effectively.

### 3. Usability Challenges - Difficulty Navigating Features

- o The study revealed that users found the drag-and-drop scheduling interface confusing. One participant shared, *“I was trying to click on the generated post instead of dragging it.”* Another added, *“It wasn’t clear that I had to move the post manually—I expected a button to do it.”*
- o These insights indicate that the UI/UX design needs to be more intuitive. SmartSocial should incorporate interactive tutorials, tooltips, or an onboarding guide to improve usability and reduce friction in the scheduling process.

### 4. AI Expectations - Desire for AI Assistance in Content Creation

- o Users showed strong interest in AI-generated content assistance, particularly in refining phrasing and optimizing post timing.
- o For instance, a participant remarked, *“It would be nice if AI could suggest phrasing options, like LinkedIn’s AI-assisted post writing.”* Another mentioned, *“I usually copy my text into ChatGPT and ask it to rewrite it for clarity. Having that in the platform would be helpful.”*
- o This suggests an opportunity for SmartSocial to integrate AI-powered phrasing suggestions and engagement trend analysis, reducing manual effort while improving content quality.

### 5. Lack of Analytics Usage - Unawareness or Inaccessibility of Social Media Metrics

- o Many participants admitted to not utilizing social media analytics, citing difficulty in accessing and interpreting data.
- o One user stated, *“I don’t analyze my social media. I check website traffic, but I have no idea what’s working on LinkedIn.”* Another added, *“It would be great if the platform told me when and what to post based on engagement trends.”*
- o These findings suggest that SmartSocial should offer a simplified analytics dashboard with clear, actionable insights. Visual reports and automated recommendations could help users optimize their posting strategies more effectively.

## RECOMMENDATIONS

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Based on the analysis of user interviews, SmartSocial should implement the following key changes to address user challenges and improve overall usability:

### **Implement AI-Driven Content Scheduling and Reminders**

Participants expressed difficulty maintaining a structured posting schedule, leading to inconsistent engagement. One participant stated, *“We don’t have an ongoing schedule; we just post whenever something notable happens.”* Another added, *“I try to post four times a month, but usually it ends up being three, and there’s no set day or time.”*

To address this, SmartSocial should develop an AI-driven scheduling assistant that:

- o Suggests optimal posting times based on user engagement trends.
- o Integrates automated reminders and a content calendar to maintain consistency.
- o Provides AI-driven recommendations on best practices for timing, frequency, and content type.

### **Expand Multi-Platform Integration**

Many users prioritize LinkedIn and Instagram, while some avoid Facebook due to lower engagement within their target audiences. One participant noted, *“I primarily use LinkedIn because that’s where my audience is. I don’t bother with Facebook anymore.”* Another

stated, *“We use Instagram, Facebook, and Twitter, but we don’t have a specific focus on any one platform.”*

SmartSocial should ensure seamless integration with LinkedIn and Instagram while maintaining flexibility for other platforms. Key improvements should include:

- A customizable platform selection feature allowing users to connect only the channels relevant to their business needs.
- Cross-platform posting capabilities, enabling users to share content across multiple platforms effortlessly.
- Formatting optimization for each platform to ensure content is displayed correctly and effectively.

### **Enhance UI/UX for Post Scheduling**

Users encountered confusion with the drag-and-drop scheduling feature, making it difficult to intuitively schedule posts. One participant mentioned, *“I was trying to click on the generated post instead of dragging it.”* Another added, *“It wasn’t clear that I had to move the post manually—I expected a button to do it.”*

To improve usability, SmartSocial should redesign the scheduling interface by:

- Introducing interactive tutorials and tooltips to guide users through the scheduling process.
- Offering multiple scheduling options, including both drag-and-drop and button-based interactions.
- Implementing a preview feature that allows users to see how their scheduled posts will appear before publishing.

### **Integrate AI-Powered Content Optimization**

Users expressed a strong desire for AI-generated content assistance, particularly for phrasing suggestions and engagement optimization. One participant noted, *“It would be nice if AI could suggest phrasing options, like LinkedIn’s AI-assisted post writing.”* Another stated, *“I usually copy my text into ChatGPT and ask it to rewrite it for clarity. Having that in the platform would be helpful.”*

SmartSocial should integrate an AI-powered content assistant that:

- o Provides real-time phrasing and tone suggestions to enhance readability and engagement.
- o Recommends keywords and hashtags based on current trends.
- o Offers automated content analysis, providing feedback on clarity and impact before publication.

### **Simplify and Visualize Analytics for Better Insights**

Many participants reported difficulty accessing and interpreting analytics, preventing them from making data-driven decisions. One user explained, *“I don’t analyze my social media. I check website traffic, but I have no idea what’s working on LinkedIn.”* Another added, *“It would be great if the platform told me when and what to post based on engagement trends.”*

To resolve this, SmartSocial should develop an intuitive analytics dashboard that:

- o Uses graphical data visualization, such as charts and heatmaps, to display engagement trends over time.
- o Compares post performance to highlight which content types generate the most interactions.
- o Provides AI-driven insights on when and what to post based on historical data, helping users refine their strategies.

By implementing these targeted recommendations, SmartSocial can significantly enhance its usability, meet user expectations, and provide a more effective social media management solution.



## Research Report #2

Managing social media can be a daunting and time-consuming task for small businesses. SmartSocial addresses this challenge by offering an affordable, intuitive solution that integrates content creation, scheduling, and performance analytics. By leveraging AI, we save users time, ensure consistent branding, and provide actionable insights that drive engagement and results. Built on a modern tech stack including React.js, Node.js, MongoDB, and OpenAI APIs, SmartSocial transforms social media into an effortless growth engine, helping small businesses enhance their online presence and reach their audience effectively.

Our mission is to ease the burden of social media management for small business owners using a social media dashboard web application that follows a tiered subscription model. The platform encourages key behaviors, including:

1. **Consistent Platform Usage:** Relying on SmartSocial as a central hub for all social media management.
2. **Content Personalization:** Utilizing AI-powered tools to create brand-consistent and engaging content.
3. **Data-Driven Decision-Making:** Using AI-generated analytics to evaluate performance and refine strategies.

To ensure that SmartSocial solves problems and meets user expectations, we conducted research via a series of short usability tests with members of our primary customer segment: small business owners who use social media to promote their business. Using a series of research questions, we gathered data about ease-of-use, user expectations, features, etc. This report serves as a method to communicate our findings.

### RESEARCH GOALS

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Based on the results from our previous round of research, which included a series of interviews, we created new goals for this usability test. This time around, they centered more on the SmartSocial system itself.

1. **GOAL:** Our service must streamline the content generation process via ease-of-use and intuitiveness.
2. **GOAL:** Our service must provide helpful and accurate metric analysis.
3. **GOAL:** Our service must ensure users feel confident and secure.

## METHODS

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Due to the inaccessible nature of our target customer segment the usability tests were conducted online using a combination of Teams and Otter.ai to hold and record the interviews. We conducted each test with a single interviewer, who asked a series of questions and observed the participant using SmartSocial.

### Data Collection:

We collected data through structured usability testing with a focused group of four small business owners who met the criteria outlined in our screener. Participants were selected based on two key factors: the size of their business (typically sole proprietors or very small teams) and their active use of social media to promote their business. This ensured that our user sample closely aligned with SmartSocial's intended user base.

To maintain consistency and reliability in our findings, we used a standardized usability testing script across all sessions. This script was designed around our core research objectives and allowed us to collect both qualitative and quantitative data in a uniform way.

Our qualitative data came primarily from observations and verbal feedback, collected during the think-aloud sessions. Participants were asked to articulate their thoughts, expectations, frustrations, and reasoning while completing specific tasks within the SmartSocial interface. This method gave us deep insight into users' mental models and revealed pain points that might otherwise go unnoticed.

To encourage authentic and contextually grounded feedback, we incorporated scenario-based tasks. These scenarios mirrored real-world challenges small business owners face—such as scheduling a post to promote a weekend sale or checking which posts performed best over the last month. Participants were guided to imagine themselves in their day-to-day work context, which helped elicit more realistic responses and usage patterns.

We also developed personas based on prior user research to help participants frame their actions and decisions through a lens that aligned with our target audience's goals and frustrations. This approach helped place them in a relatable, work-relevant headspace and deepened the quality of insights gained during testing.

Our quantitative data was primarily gathered through task completion tracking, where we noted whether users were able to complete each given scenario successfully. While we didn't track time-on-task or error frequency, the binary success/failure outcomes gave us valuable signals about where usability issues were present and how intuitive each feature was.

By blending scenario-based testing, persona-driven thinking, and a structured script with both behavioral and outcome-based tracking, we collected rich, actionable data that directly informed the refinement of SmartSocial’s design and functionality.

#### Data Analysis:

We analyzed the collected data using a combination of generative AI tools and manual review. Our approach was grounded in thematic analysis, which involved identifying recurring patterns across participant feedback—such as common thought processes, usability challenges, and feature preferences.

To thoroughly understand the user experience, we incorporated both qualitative and quantitative data. On the qualitative side, we used the think-aloud method during usability testing sessions. Participants were encouraged to verbalize their thoughts, decisions, and reactions as they interacted with the interface. This method allowed us to gain insight into their cognitive processes—what they expected to happen, what confused them, and how they interpreted various design elements. Hearing their reasoning in real time helped us identify moments of friction that might not have been apparent through observation alone.

On the quantitative side, we recorded task completion rates to determine whether users were able to successfully complete key actions. This gave us a high-level indicator of usability and helped us assess which features were intuitive and which ones required improvement.

By analyzing both the spoken feedback and the outcome of task attempts, we were able to triangulate insights and build a clearer picture of user needs and usability issues.

## RESULTS

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To retain the integrity of the results, they are presented in the order of each research goal, including results, analysis, and recommendations per goal.

GOAL 1: Our service must streamline the content generation process via ease-of-use and intuitiveness.

- Results
  - o *“This is very unclear to me...if this is going to be good for text posts, if it’s going to be good for image posts... I’m confused by this.”*

- o *“If I had never used AI before, like some people I know, I wouldn’t even know what ‘prompt the generator’ meant.”*
- o *“I would have...an explanation of what kinds of content this does... maybe a tooltip or a pop-up tutorial.”*
- o *“It looks like just a calendar... I'd probably go to the generate button and try to generate an idea.”*
- Analysis
  - o Participants with and without AI experience found the content generation tool confusing or unclear. There was ambiguity about whether it produced text or image content. The interface lacked guidance and cues for first-time users.
- Recommendations
  - o Add clear onboarding instructions and persistent tooltips explaining input/output expectations.
  - o Separate content generation types (e.g., image, text, video).
  - o Incorporate contextual examples and hover-over definitions for terminology like “prompt.”

GOAL 2: Our service must provide helpful and accurate metric analysis.

- Results
  - o *“I can see you have a stacked bar graph over here... I can extract how many were saves versus shares.”*
  - o *“I’d probably go to ‘analyze’ and ask my analytics chatbot... that’s pretty cool.”*
  - o *“I would go search online... and look back historically at my posts... but I’m guessing with the interface here, I would ask the analytics chatbot.”*
  - o *“This kind of stuff is going to blow people away... if I can go in there and say ‘Why did post number four not perform well?’ and it gives an answer, that’s pretty cool.”*
- Analysis
  - o Participants appreciated the visibility of engagement metrics and the inclusion of an analytics chatbot. However, there were concerns about whether the tool could provide tailored insights or just generic feedback.
- Recommendations
  - o Expand chatbot functionality to provide personalized feedback using users' historical data.
  - o Enable labeling or naming of posts in the analytics dashboard.

- o Include contextual tips or suggestions based on performance data (e.g., post timing, format).

GOAL 3: Our service must ensure users feel confident and secure.

- Results
  - o *“It’s not clear what I’m supposed to do next... if I hadn’t used calendars before, I wouldn’t know what to do.”*
  - o *“Some explanatory text could help... maybe pop-ups the first time someone uses the tool.”*
  - o *“I think that makes sense to me, because I’ve seen Calendly... but that might not be true for someone new.”*
  - o *“If I hadn’t used it before, I’d be really confused... more guidance would be helpful.”*
- Analysis
  - o Confidence varied by user familiarity. Those new to scheduling tools or AI interfaces expressed a lack of clarity. Confidence increased when participants saw familiar UI patterns or received clear feedback from the system.
- Recommendations
  - o Include first-use guided tours and pop-up tutorials for scheduling and analytics tools.
  - o Add static helper text or brief walkthroughs for key features.
  - o Highlight system safeguards (e.g., email alerts) to build trust and reduce error-related anxiety.

## OVERALL RECOMMENDATIONS

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To tie our analysis to the “big picture” project, we used a combination of ChatGPT and hand combing, resulting in the following recommendations:

1. Improve onboarding clarity
  - a. Many participants expressed uncertainty around how to interact with content generation and scheduling features, especially if they lacked prior experience with AI tools or social media management systems.
  - b. Suggestions:

- i. Implement a guided onboarding flow that introduces users to each core feature with brief, dismissible tutorials.
    - ii. Use tooltips, inline examples, and hover-over definitions for terms like “prompt” or “generate.”
    - iii. Clearly distinguish content types with labeled buttons and use more recognizable icons to reduce guesswork.
  2. Strengthen metric analysis and personalization
    - a. Users appreciated the analytics dashboard and chatbot but wanted more actionable insights tailored to their content.
    - b. Suggestions:
      - i. Enhancing the chatbot to provide personalized, data-driven feedback based on each user's posting history and engagement trends.
      - ii. Allowing users to tag or name posts to improve clarity when viewing analytics (e.g., “Spring Sale Video” instead of “Post 3”).
      - iii. Integrating contextual suggestions directly in the analytics view, such as “Try posting at 10 AM” or “Carousel posts performed well last week.”
  3. Build confidence through guidance and safeguards
    - a. Participants noted that unclear interfaces or unfamiliar features made them hesitant.
    - b. Suggestions:
      - i. Use progressive disclosure to introduce more complex tools gradually, rather than presenting everything at once.
      - ii. Add system safeguards like undo options, confirmation prompts, autosave, and scheduling alerts (e.g., “This is scheduled for today at 4 PM — is that correct?”).
      - iii. Adopt a friendly, reassuring tone in tooltips and helper text to make users feel supported rather than tested.
  4. Support diverse content creation needs
    - a. Participants had different Social Media needs depending on their preferences. Some participants focused on text posts for LinkedIn, others on video for TikTok, and others on image-based posts for Instagram.
    - b. Suggestions:

- i. Include modular content generation options, allowing users to choose what they want to create (text, video, image) before engaging with the tool.
  - ii. Provide pre-filled sample prompts and editable templates based on business type or goals.
  - iii. Consider lightweight AI-powered editing suggestions (e.g., “Remove background,” “Add brand logo”) especially for image or video content.
5. Ensure accessibility and consistency across devices
  - a. While not explicitly raised, improving accessibility would help support first-time users and experienced marketers alike.
  - b. Suggestions:
    - i. Designing features with **mobile users in mind**, ensuring responsiveness and ease of navigation on smaller screens.
    - ii. Following accessibility standards for contrast, keyboard navigation, and screen reader compatibility.

## CONCLUSION

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The usability tests conducted for SmartSocial provided critical insights into how effectively the platform supports its core mission: simplifying social media management for small business owners. Across multiple scenario-driven tasks, participants voiced consistent concerns about clarity, guidance, and content customization—particularly for first-time users or those unfamiliar with AI tools. Despite some friction, users were enthusiastic about the potential of features like the AI analytics chatbot and appreciated the centralized, visual nature of the scheduling tools. The tests affirmed that while the foundational features of SmartSocial are promising, refinements are necessary to improve usability and foster user confidence. Enhancing onboarding experiences, incorporating contextual help, and delivering more personalized analytics will be key to increasing adoption and satisfaction. With thoughtful iteration based on this feedback, SmartSocial is well-positioned to become an indispensable tool for small businesses looking to boost their digital presence efficiently and effectively.

## Release Form

To Whom It May Concern:

I (the undersigned) do hereby confirm the consent heretofore given you with respect to your photographing me or my child in connection with your video/Multimedia program entitled Capstone Research and Development, and I hereby grant to you, your successor, assigns and licensees the perpetual right to use, as you may desire, all motion pictures and sound track recordings which you may make of me or my child, and the right to use my name and/or child's name or likeness in or in connection with the exhibition or any other use of such video or recording.

I am over eighteen years of age. Y/N

Signature: \_\_\_\_\_

Name (print): \_\_\_\_\_

Name of Child (print): \_\_\_\_\_

Home Address: \_\_\_\_\_

Phone Number(s): \_\_\_\_\_

Date: \_\_\_\_\_

## Consent Form

We are asking you to be a subject in a research study of the social media management system called **SmartSocial**.

The group of people responsible for conducting this study are **Emilie Whitewolf, Mason Proskin, and Daniel Murtha**.

This testing group is supervised by Dr. Jeff Ritchie, a faculty member at Lebanon Valley College and professor of DCOM 411 course, Capstone Research and Development. You can reach Professor Ritchie at 717-867-6249 or email at [ritchie@lvc.edu](mailto:ritchie@lvc.edu).

By signing this form, you acknowledge that you have been informed:

- The purpose for this research
- That you will not receive any payment or remuneration for participation in the research
- That you can decide to revoke your participation at any time. If you revoke your participation, the notes and audio recordings collected during test will be destroyed upon request.
- You will be asked to perform activities related to the perception, behavior, and functionality of technology systems, documents, or artifacts
- Normally these activities and questions do not require responses that contain personal, confidential, or medical information
- You have the right to refuse to perform any activity or answer any question.
- The audio and written data of your test will be stored on a computer and used for data analysis, reporting, and recommendations for a period of up to 3 years.
- You will not be identified by name, title, or locations under any circumstance in any form of published or private research publication.
- You are of majority age or have parental/guardian consent (sign below)

Dr. Ritchie has agreed to answer any inquiries you may have concerning this usability test and its procedures.

Signature of Subject: \_\_\_\_\_ Date \_\_\_\_\_

Parental/Guardian Consent: \_\_\_\_\_ Date \_\_\_\_\_