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AI Applications in Digital Business

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This research explores the transformative synergy between Artificial Intelligence (AI), productivity, and the dynamics of quickly launching a product or business in the digital business landscape.

With AI tools, the traditional timeline for testing and experimentation and marketing and copywriting refinement, this process is compressed to a matter of days, not months.

This rapid iteration not only accelerates innovation but fundamentally alters the operational scale required for business viability. Organizations leveraging AI can achieve unprecedented levels of productivity, enabling a leaner workforce to manage tasks that once demanded larger teams.

This paradigm shift presents both an opportunity for visionaries armed with innovative ideas and a threat to those resistant to AI integration.

In a world where three individuals can now effectively run a business that previously required thirty, the strategic implementation of AI emerges as the linchpin for success and sustainability.

Keywords— Artificial Intelligence (AI), Digital Business, Productivity Improvement, Marketing, Copywriting, ChatGPT, Rapid Prototyping, Minimum Viable Product (MVP)

I. INTRODUCTION

Within the evolving contours of the digital business landscape, the confluence of Artificial Intelligence (AI) and rapid prototyping stands as a transformative paradigm. This paper elucidates a nuanced use case, centering on the expeditious development of a Minimum Viable Product (MVP), encompassing both web architecture and strategic marketing initiatives. Employing a methodological triad, we leverage three distinct AI tools: ChatGPT for ideational impetus, Summarize.tech for the synthesis of tutorial video insights, and HeyGen for the crafting of persuasive narratives through sophisticated avatars. Through systematic experimentation, our focus rests on the random selection of a business concept generated via ChatGPT prompts. This study unfolds a narrative that delves into the profound impact of AI-infused rapid prototyping on the traditional boundaries of creative ideation, methodical experimentation, and the overarching evolution of transformative business strategies..

II. USE CASE

A. Rapid Ideation with ChatGPT

The foundation of our rapid prototyping use case lies in the unparalleled ideation capabilities of ChatGPT. By employing carefully crafted prompts, we navigate the expansive knowledge encapsulated within this language model to generate innovative business concepts swiftly. The random selection of a business idea sets the stage for subsequent experimentation, highlighting ChatGPT's role in not only sparking creativity but also in dynamically shaping the contours of our MVP. The adaptability and responsiveness of ChatGPT emerge as key assets in this phase, providing a rich reservoir of ideas to fuel the rapid prototyping process.

B. Information Synthesis with Summarize.tech

Once the business concept is delineated, our attention turns to the assimilation of knowledge from tutorial videos, a task streamlined through Summarize.tech. This tool systematically processes and distills information from relevant video content, ensuring that our prototyping endeavor is informed by nuanced insights. The succinct summarization facilitated by Summarize.tech not only expedites the research phase but also enhances the efficiency of knowledge extraction, thereby fortifying the robustness of our MVP development process.

C. Persuasive Narratives with HeyGen

With a refined business concept and synthesized insights, HeyGen takes center stage in crafting persuasive narratives for our MVP. Leveraging realistic avatars, HeyGen dynamically generates scripts that go beyond textual communication, presenting a visual and auditory engagement layer. This tool contributes to the marketing component of our use case, showcasing the potential for AI-driven avatars to articulate and visually represent business propositions. HeyGen's proficiency in generating lifelike narratives serves as a testament to the evolving landscape of AI applications in enhancing communication strategies within the digital business realm.

III. EXPERIMENTS AND RESULTS

In the ever-accelerating realm of digital entrepreneurship, the imperative to swiftly conceive and present a Minimum Viable Product (MVP) has become paramount. Recognizing this need, the AI Website Mockup Challenge was undertaken, targeting 20 recent MBA students at La Salle University. The core objective was to assess the participants' ability to efficiently leverage AI tools to generate a website, inclusive of compelling copywriting and a marketing avatar, all within a stringent time frame of under 30 minutes. This challenge, aptly named the AI Website Mockup Challenge, sought to ascertain the practical feasibility of employing AI technologies in rapid MVP creation, with a focus on tangible outcomes and effective presentation

The AI Website Mockup Challenge for Solopreneurs was conducted with meticulous steps to explore the efficacy of leveraging AI tools in the rapid prototyping of a Minimum Viable Product (MVP) for digital startups. From ideation through business plan development to the creation of a mock-up website, the experiment aimed to demonstrate the seamless integration of AI technologies in catalyzing the creative process and expediting the conversion of conceptualized ideas into tangible digital assets. This section delves into the structured experimentation methodology and presents the outcomes, showcasing the transformative potential of AI-driven approaches in the dynamic landscape of digital entrepreneurship..

The AI Website Mockup Challenge unfolded as a carefully orchestrated experiment to gauge the proficiency of 20 recent MBA students at La Salle University in rapidly conceiving and presenting a digital startup. Participants were guided through a systematic process, commencing with the ideation phase utilizing ChatGPT's Problem/Solution framework. Following the selection of a startup idea, participants engaged ChatGPT to draft a comprehensive business plan, laying the groundwork for subsequent digital manifestation. The website creation phase necessitated swift navigation through tutorials, summarized using Summarize.tech, to craft an effective homepage or landing page. AI-driven tools were then deployed to generate compelling copywriting and a 45-second promotional marketing video script, culminating in the creation of a mock-up website accompanied by a dynamic marketing avatar.

The outcomes of the AI Website Mockup Challenge were illuminating, showcasing the potential of AI tools in catalyzing rapid MVP development. Remarkably, participants successfully presented their website, complete with copywriting and a marketing avatar, within the stipulated 30-minute timeframe. The structured ideation process empowered participants to swiftly generate innovative startup ideas, while the subsequent business planning phase demonstrated the adaptability of AI in formulating comprehensive strategies. Notably, the website creation phase underscored the efficiency gains achieved through the integration of AI tools, from summarizing tutorials to generating cohesive copy and engaging video scripts. The challenge not only affirmed the feasibility of leveraging AI for rapid prototyping but also underscored the significance of equipping future entrepreneurs with these transformative skills.

A. Idea Generation – Problem / Solution Framework

To initiate the AI Website Mockup Challenge for Solopreneurs, the experiment commenced with ChatGPT, employing a structured approach rooted in the Problem/Solution framework. The process involved generating ideas within emerging industries poised for growth. Subsequently, the focus shifted to the creation of digital startup concepts addressing prevalent consumer issues. Participants were prompted to choose an idea from the generated concepts, emphasizing the iterative nature of the ideation process. The selected startup idea served as the foundation for the subsequent stages of the experiment.

B. Business Plan Generation

Building upon the selected startup idea, participants were directed to articulate a comprehensive business plan using ChatGPT. This entailed formulating a detailed framework encompassing the startup's name, a concise one-liner, target user persona, user pain points, main value propositions, sales and marketing channels, revenue model, cost structures, key activities, key resources, key partners, idea validation steps, estimated first-year operational costs, and potential business challenges. The outcomes were structured and presented in a Markdown table format, providing a tangible roadmap for the envisioned digital startup.".

- A series of specific prompts were used with ChatGPT

- Do Identify Emerging Industries:

- Prompt: Identify [number] emerging industries with potential for growth.

- Generate Digital Startup Ideas:

- Prompt: Generate [5] digital startup ideas that are not being done today, solving current problems in [5] emerging industries. List the ideas with the title of the industry, problem, and solution.

- Note: If you liked any of these ideas, copy and paste it here.

- Selected Startup Idea Business Plan:

- Prompt: Using this idea [insert the idea you have chosen], generate a business plan for the digital startup. Include idea name, a short one-liner, target user persona, user's pain points, main value propositions, sales and marketing channels, revenue model, cost structures, key activities, key resources, key partners, idea validation steps, estimated 1st-year cost of operation, and potential business challenges. Write the result in a markdown table.

- Website Creation Instructions:

- Instructions: Transform your concept into a mock-up website in the next hour. Use AI to write the text, and create a captivating video avatar to engage your audience.
- Build a Website:
- Identify your niche and associated keywords.
- Google search for the perfect home page tutorial on YouTube.
- Use Summarize.tech on the found tutorial: https://www.youtube.com/watch?v=WgXU7XAZYmQ &t=115s.
- Use the summarized text to prompt ChatGPT for copywriting for your landing page.
- Prompt ChatGPT to build a website with HTML and CSS files.
- Copywriting for Landing Page:

- Prompt: Using the healthcare startup business, follow the instructions to create the best copywriting for my landing page, utilizing the instructions.
- Build Website with HTML and CSS:

- Prompt: Build me a website with an HTML file and CSS file. Creation

The subsequent phase of the experiment pivoted towards transforming the conceptualized business into a tangible digital presence. Participants were tasked with crafting a mock-up website within a constrained one-hour timeframe. This involved sourcing a suitable tutorial on YouTube for designing an effective homepage or landing page. The chosen tutorial was subjected to summarization using Summarize.tech, streamlining the extraction of essential information. AI was then leveraged to generate compelling copywriting for the landing page, followed by the creation of HTML and CSS files. Additional elements, such as an image sourced from FreePik, were seamlessly integrated into the website.

C. Marketing Video Creation with HeyGen

Finally, the participants engaged HeyGen to produce a 45-second promotional marketing video script, leveraging realistic avatars to enhance audience engagement. The utilization of HeyGen introduced a visual and auditory dimension to the digital startup presentation. Participants seamlessly translated the generated script into a captivating video by leveraging HeyGen's intuitive interface. The lifelike avatars not only conveyed the essence of the startup but also added a dynamic and engaging element to the overall presentation. This step further reinforced the multifaceted capabilities of AI tools in creating a comprehensive and compelling narrative within the condensed timeframe of the AI Website Mockup Challenge.

CONCLUSIONS

The culmination of the AI Website Mockup Challenge witnessed each group of MBA students successfully navigate the intricacies of rapid MVP development, a feat that resonated with significance. Impressively, all participant groups, despite limited prior experience in coding HTML and CSS files, adeptly created websites complemented by engaging avatar videos. This achievement not only underscored the efficacy of AI tools in streamlining complex processes but also demonstrated their potential to empower individuals to surpass their existing skill sets. The participants' collective enthusiasm and newfound confidence in presenting a digital business online was palpable. The challenge served as a catalyst, pushing the boundaries of their capabilities and instilling a sense of assurance in their ability to leverage AI effectively.

The resounding success of this experiment unveils a transformative potential — not merely as a demonstration of technical capabilities but as a paradigm shift in mindset. The participants' journey from initial apprehension to proficient execution reflects the latent power of AI to augment and amplify existing skills. Encouragingly, the consensus among participants pointed towards an emergent realization that AI is not just a tool but a strategic asset that merits deeper exploration. As future business leaders, their recognition of AI's role in enhancing marketability was unequivocal. The resolute conclusion drawn from this experience is that familiarity with AI is not merely advantageous but essential in navigating the evolving job landscape. It stands as a compelling call to action for individuals to embark on a journey of continual AI education, solidifying their positions as adept, future-ready professionals in the dynamic digital business sphere.

This experiment serves as a cornerstone in the ongoing discourse surrounding AI integration in education and highlights the imperative for academic institutions to incorporate AI-focused curricula. As these MBA students carry forth the experience gained in the AI Website Mockup Challenge, their journey symbolizes not just a successful experiment but a crucial step towards a future where AI proficiency is an indispensable aspect of professional competence.

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