From Concept to Creation: Exploring Student Perspectives on Figma's Prototyping Tools

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Introduction

Effectively communicating through online channels, especially on websites, is an essential skill for agricultural communicators as they enter the workforce (Irlbeck & Akers, 2009; Leal et al., 2020). As web designers work to make their designs more effective, user centered design is becoming the industry standard approach to web design (Liedtka & Chin, 2018). User experience design is "the process of creating products or services that provide meaningful experiences for users, involving many different areas of product development including branding, usability, function, and design," (Columbia Engineering Boot Camps, n.d., para. 3). Web design requires steps to plan, create, assess, test, launch, and maintain a website (Jolaoso & Main, 2023; Schäferhoff, 2023). As web designers emphasize user experience design, they indicate the importance of the planning and testing stages (Manhas, 2017). Prototyping is an "obvious and unquestionable" necessity in planning and testing in web design (Lim et al., 2008, p. 2) and allows designers to identify user priorities (Andrews et al., 2012). Many programs are available as tools to build prototypes for websites, including Invision, Sketch, and Webflow (Clark, 2024). Figma is a popular program for creating prototypes for websites (Clark, 2024; Figma Learn, n.d.). Figma offers free "professional team" subscriptions for education, which opens many opportunities for easy integration of this powerful design tool into the university classroom.

As web design turns toward a user centered design approach, prototyping websites is an essential step in ensuring designers create effective websites. Therefore, this project created a class assignment to have students create a prototype of their portfolio site for students to understand the planning required of successfully implementing user centered design in their portfolio site.

How it Works

Throughout a semester-long web design course, students implemented each step of the web user centered design process to create a personal portfolio site. Before building their websites, students were tasked with building a prototype of their portfolio using Figma. The prototyping process had three phases that built on each other: wireframe sketch, mockup, and prototype. Students began by brainstorming their layout in a basic wireframe sketch on paper showing the sections and overall layout of their portfolio site. To mockup their designs, students built their wireframe in Figma and added color and font styles. After, students were tasked with developing the prototype. Here, they finalized their layout of their portfolio site including all pages, copy, images, buttons, and colors. Following, they applied prototyping techniques providing links and working navigation as it would be in their final portfolio site. At the conclusion of the prototyping assignment, students were asked questions to understand how prototyping in Figma impacted their strategic design process. Students were asked five questions: (a) what did you learn about strategic website planning by completing your prototype?, (b) how did knowing your audience impact your prototype design?, (c) how do you describe your thoughts about working in Figma?, (d) how did previous class content help you strategically build your prototype?, and (e) how will you apply this prototype to your final portfolio site?

Results to Date/Implications

Results for this abstract are derived from students' responses to the reflection questions during the spring 2024 semester. Student responses revealed that prototyping their portfolio site helped

them bring all their website pieces together and made them confident in the next steps of their website creation. Specifically, students shared their *desire for more time in Figma*, the *importance of planning* to prototyping their websites, and how *prototyping helped focus on user-centered design*.

Overall, over half of the 12 students expressed a positive impression of working in Figma. For the remaining students who were less positive in their opinion of the program, they expressed a *desire for more time in Figma.* One student shared, "Figma is very helpful, I just think it would take many projects for me to get familiar with it to the point where I recommend it." Specifically, students mentioned it was easy to find tutorials online and the plug-ins made the program easier to use. Students shared that building their prototype made them realize the *importance of planning* in web design. One student said, "it began to make sense why web designers break the process down into so many steps rather than just starting in Wix and making their site." Another shared, "having a plan for the website allows the designer and the client to clearly understand what the site should look like before it goes live." Many students noted specific class projects for website planning as helpful to building their prototype. These included inspiration websites, website copy, style guides, wireframes, and user personas. The final emergent theme was that *prototyping helped focus on user-centered design*. They described, "designing with this perspective helped guide my design when it came to layout, visuals, and general flow. Potential employers may have a hard time seeing smaller print, so I avoided the hard-to-read type to ensure that it is legible." Another student explained that user-centered design helped them "know what they [users] are looking for" and "prioritize that content."

Future Plans/Advice to Others

This innovative assignment is critical in a web design course. It showed prototyping as a useful tool for brainstorming layouts before website creation, and it showed students an essential step in the planning process by identifying needed changes for effective user experience. To teach prototyping skills, instructors in university-level web design courses in agricultural communications should use Figma, or similar tools, to give students real-life experience creating prototypes for web design. After implementing this in a classroom setting, we recommend this activity be a part of curriculum that emphasizes other steps in web design planning (i.e., outlines, website copy, visual style guides) before prototyping. Additionally, instructors should break down the prototyping steps (i.e., wireframe, mockup, prototype) in a class activity and have multiple examples of each step. This activity works best with instruction time devoted to learning Figma and in-class worktime to troubleshoot the program. To wrap up the project, students should be given time after the assignment to reflect on the prototype creation process and its application to their final portfolio site. In class peer reviews would be a beneficial step to add in order to test the user experience of student prototypes.

Cost/Resources Needed

While Figma's basic account is free, it is limited. However, Figma provides a free "professional team" accounts for education. Therefore, there is no subscription cost for students and instructors to access advanced features on Figma. Laptops and internet access are essential to creating these prototypes. Though minimal physical or financial resources are needed, adequate instructional time should be allocated to teach students the basics of this new program. Similarly, instructors will need additional time to build their personal knowledge of the program.

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