Visual Designers +
The Promise of
Adobe's Assistive AI

Executive Summary

Adobe suggests that its Assistive AI tools will **"maximize creativity and precision"** and enable Adobe users to **"spend more time creating and less time on basic, repetitive tasks."**[1]

We wanted to understand whether visual designers (whom these tools are marketed toward) think of these tools and their impact in the same way. We also wanted to understand if these tools currently deliver on the promise of maximizing creativity and reducing time spent on non-creative tasks.

To do so, we conducted three studies: One based around user attitudes that compares the attitudes of heavy and light Adobe users; one around the impact of these tools on users' workflows and outcomes; and a usability study comparing efficiency and effectiveness of a single Photoshop task with and without AI assistance.

Through this research we found that **visual designers recognize the necessity of embracing AI to stay competitive. They are concerned with the inclusion of AI in their professional work but willing to learn and implement AI in personal creative work. They are skeptical of Assistive AI's current abilities to help them to produce quality work.**

[1] "Adobe AI Innovation Maximizes Creative Power," Adobe, 2022

Key Takeaways

- Designers are willing to learn about and implement AI in personal creative work but **hesitant to use it in their professional work due to legal and copyright concerns.**
- Designers are **skeptical about Assistive AI's current abilities**, and don't see it as saving them much time because of how much tweaking and editing using Assistive AI requires.
- Designers see a future where Assistive AI can be a good ideation partner and time-saver, but **don't believe that promise has yet been met.**
- Designers **expect Assistive AI to integrate into their current workflow** to support the ways in which they already work.

We conducted three studies

1 | *Attitudes*

Designers are concerned with the inclusion of AI in their professional work, but are willing to learn and implement AI in personal creative work.

Designers do not feel comfortable producing work with the use of AI, and claiming it as their own in a professional setting. They have ethical concerns about intellectual property rights and originality. They shared another major professional concern: loss of creative control.

Designers recognize the necessity of embracing Adobe AI to stay relevant in the ever-evolving landscape.

Regardless of their opinion on Adobe AI, designers understand that to remain competitive they should leverage the AI tools to their advantage.

Designers express skepticism towards Adobe AI tools due to concerns over inaccuracies and quality of the results.

Designers expressed limitations of AI with the fundamental concern of reliability of the output. Most did not feel they could trust the output of Adobe AI because it does not meet their standards,

Designers thought AI currently being an extra step(s) doesn't threaten their jobs, but could if it eventually eliminates steps.

Most Designers have concerns with the use of Adobe AI in professional scenarios, specifically concerns with legal and ethical issues pertaining to using AI in creative work.

The heavy users were the ones that had the most to say about AI. They expressed concerns but also an interest in learning more about it as a professional advantage.

When AI is used for fun and creative work, it's seen as helpful and a good ideation partner. When it's used for professional contexts especially those that use design to share information, they're more skeptical.

Legal Concerns: Designers are concerned about Copyright Issues with work produced by AI

Some participants are concerned that using the assistive AI features could include unknown copyright in designs that are produced. Participants were also concerned that the issue of copyright could disconnect their ownership of their own designs.

"I would never use AI in my own work, because it's a **question of copyright**."

— *Participant 3, heavy Adobe user, light AI user, Graphic Designer*

"If that is really gonna lie in the…design world because **it's not your design**."

— *Participant 10, heavy Adobe user, light AI user, Graphic Designer*

"II wouldn't own the work, there'll be a question as to whether or not **I own that work**."

— *Participant 3, heavy Adobe user, light AI user, Graphic Designer*

"my main concern for like, using **professionally** is like, I want to make sure that things are like **legally licensed** to be able to use for clients, right?"

- *Participant 2, heavy Adobe user, light AI user, Graphic Designer & Freelance Photographer*

4/14 participants discussed concerns over copyright and ownership issues that come with the use of Assistive AI.

Ethical Concerns: Designers are concerned about Ethical Issues when using AI

Some participants feel that when introducing AI into their work, it can become unethical. Participants were concerned that their work could potentially mislead the audience and be considered morally unethical if it produces untrue or false design elements.

"I would not want to because **I feel like it wouldn't be mine**. And like maybe that I think that aligns probably with my **values and morals** that I like, want it to be for me."

— *Participant 11, heavy Adobe user, light AI user, Graphic Design Student*

"My whole career has had to stop at the line where it **misleads the audience**."

— *Participant 9, heavy user, light AI user, News Designer*

"if I'm able just to go ahead and punch a couple of things in and get a finish piece that they're gonna pay me thousands upon thousands of dollars for that. That **doesn't even feel right**?"

- *Participant 4, heavy Adobe user, light AI user, Creative Director*

Ethical Concerns: Designers are concerned about Ethical Issues when using AI (CONT.)

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- *Participant 4, heavy Adobe user, light AI user, Creative Director*

8/14 participants discussed concerns over ethical issues with the use of AI.

"I think that people can **misuse** it. And they can create, like a **false reality**. Like, as a journalist, people already don't have trust in the media, and **they don't have trust in what you see** on social media even or anything like that. And so while I do think that it would be like a tool... I think that it can also be harmful towards people who are just trying to get information."

- *Participant 8, heavy Adobe user, light AI user, Journalist*

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Creativity: Designers Were Split on How Assistive AI affects their level of creativity

Designers were split on how Assistive AI affects their level of creativity. Of the users who mentioned creativity 4 out of 14 users mentioned AI limiting creativity and 4 out of 14 mentioned AI improving creativity.

"It's a **obstacle in the creative process** sometimes is working with these trying to **make something work** when you should just **build something** that does work**..**"

— Participant 7, heavy Adobe user, light AI user
Motion Graphics Designer

"if you type in a sentence and you use that as your final thing. That's **not creative**"

– Participant 10, heavy Adobe user, light AI user, Graphic Designer

"So it's going to **stifle creativity**. No one's going to go and do some weird thing that's going to stand up and move art forward."

— Participant 3, heavy Adobe user, light AI user
Graphic Designer

6 out of 14 users mentioned creativity in relation to AI. HALF of those users feel AI could limit creativity.

Creativity: Designers Were Split on How Assistive AI affects their level of creativity (CONT.)

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I mean, if you're really strapped for ideas, I guess it **could be useful for giving you a prompt** to try kick start.

— Participant 5, light Adobe user, Light AI user, Graduate Design student

"And you kind of arrange it just with cutouts that you found or stock photos, you could definitely use the generative AI to create those elements and say, we wanna shoot something like this, even though you're not running the AI generated content, and I think using it as a **source for inspiration**."

— Participant 9, heavy Adobe user, Light AI user, News Designer

"I could also see it **boosting** my creativity in a way that I'm like, Oh, I kind of **like that**. But I want to like **make it my own** in a way."

- *Participant 11, heavy Adobe user, Light AI user, Graphic Design student*

6 out of 14 users mentioned creativity in relation to AI. HALF of those users feel AI could improve creativity, specifically referring to inspiration for projects.

Efficiency: Designers are undecided on whether Assistive AI improves or decreases their productivity

According to the participants that commented on efficiency, the data was split almost 50-50 for thinking Adobe AI was efficient and thinking Adobe AI was not efficient in their everyday work. Some users felt it may be efficient in some areas and not efficient in others.

"I think it would make it **more efficient** for me, if I were to need it would just make it a lot faster. I wouldn't have to think too much with it."

— *Participant 11, heavy Adobe user, light AI user, Graduate Design student*

"If they're using (AI) to make their **own day to day careers more efficient** and make their lives more efficient. It's **purely coming from a creative space** of like, Oh, I could have paid an independent artist to make a commission for me of this family portrait. But instead of doing that, I'm just going to feed it to this open source free tool."

— *Participant 14, light Adobe user, light AI user, Media Assistant*

"I think all of the examples we've talked about, you know, where **it's assisting and tedious processes**, I think, would be great… It sometimes takes a long time to find exactly the stock pieces that we're looking for in order to provide that inspiration.

- *Participant 9, heavy Adobe user, light AI user, News Designer*

9 users spoke on efficiency related to AI. 3 of those users made comments mentioning AI improving efficiency AS WELL AS limiting efficiency. 3 out of 9 thought it would improve efficiency and 3 out of the 9 thought it would limit efficiency.

Heavy AI users were more likely to call AI efficient and praise the software.

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Efficiency: Designers are undecided on whether Assistive AI improves or decreases their productivity

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"if the AI could like sense what I'm doing it like oh, you're trying to cut out hair or something, and it points me in the right direction. I guess that could be cool, but it also still feels like a **workflow interruption**.

— *Participant 7, heavy Adobe user, light AI user, Motion Graphics Designer*

"I don't think they're any faster. I think long term it's going to be it could lead to inefficiency."

- *Participant 3, heavy Adobe user, light AI user, Graphic Designer*

"you do need to take the time to research and come up with different ideas in the sketching process and if you just go skipping all that, just AI, you might be **losing a good idea** if you did not take the time to think about it"

- *Participant 10, heavy Adobe user, light AI user, Graphic Designer*

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Loss of Jobs to AI: Designers were concerned with loss of jobs with AI

Pertaining to potential job loss as a result of advancements in AI, the data was scattered. Some participants mentioned how the future threat AI has to human designer jobs is very much legit, while others offered it may actually enhance human designing career paths instead of replacing them.

"hospital setting came to mind. Again, AI could help keep track of stuff easier than humans Again, AI could help keep track of stuff easier than human, but industries where AI tools could be really useful, I mean, if you're really strapped for ideas, I guess it **could be useful for giving you a prompt** to try kick start.

— *Participant 5, light Adobe user, light AI user*

"It's like, **if it doesn't take your job, it makes you work harder**, or longer, or not even harder or longer but still has you do more stuff, and it's like why"

— *Participant 7, heavy Adobe user, light AI user, Motion Graphics designer*

"I think the thing that I hope for it is that it, in some way, kind of, like, **democratizes design**, gives people inspiration"

— *Participant 13, heavy adobe user, light AI user,*

Strategic communications lecturer

2 light users had a level of worry about potential job loss due to AI as opposed to 1 heavy user.

Designers thought that if it was an extra step, then it was not a threat to jobs. But if it replaces steps then there is the potential for loss of jobs.

Inaccuracies: Designers were concerned with correcting inaccuracies in AI output

Inaccuracies in AI-generated content emerged as a significant concern among designers, with over one-third of participants (5 out of 14) highlighting this challenge as a key issue in their workflow

" A lot of the times to make the AI images work there's a lot of **post work** that you have to do on it. You have to like get rid of the sixth finger. "

— *Participant 7, heavy Adobe user,light AI user, Motion Graphics Designer*

"The product that you get out like the end product… **isn't good enough**."

— *Participant 3, heavy Adobe user, light AI user, Graphic Designer*

"I'm definitely one of the **skeptics** that I find it pretty inaccurate."

— *Participant 9, heavy Adobe user, light AI user, News Designer*

5 heavy users discussed correcting inaccuracies, No light users did.

Findings Summary

	RESEARCH QUESTION	FINDING	SIGNIFICANCE
1	How do visual designers feel about the general concept of Assistive AI?	Most Designers have concerns with the use of Adobe AI in professional scenarios, specifically concerns with legal and ethical issues pertaining to using AI in creative work. Designers expected Adobe's Assistive AI tools to improve their productivity but were concerned with the accuracy of the output the tools currently produce.	These attitudes will affect the future of AI in creative fields. Clarification on Copyright issues regarding AI produced work needs to be made at a legal level for designers to understand whether or not they could use AI in professional work and avoid those concerns.
2	How do users' levels of expertise with Adobe Creative Suite correlate with their attitudes and perceptions of Adobe's AI products, if at all?	Due to lack of light Adobe users, this is still unclear.	In professional scenarios, clients want work that is created for them to be made by the designer not by a generative AI feature.
3	Are there any specific use cases or industries where users find Adobe's AI products particularly effective or ineffective?	Designers highlighted the Premiere Pro transcript AI feature as something they believe would be very effective. Designers highlighted news reporting and fact based design would be an area that AI was ineffective.	In order for more designers to utilize the Assistive AI features, there should be better processes for designers to interact and use the different AI features throughout all Adobe programs rather than each AI being strictly for one program.
4	How do users feel about the result of using AI on their tangible creative output?	Designers were concerned with correcting inaccuracies in AI output. Designers are concerned about Ethical Issues when using AI, especially in professional uses.	Creative reliable outputs provide designers and consumers with security in accurate products.
5	What expectations and concerns do visual designers have regarding the impact of using Adobe's Assistive AI tools on their productivity?	Designers expect that when using the AI features in the Adobe programs, they have a streamlined way to utilize the AI functions as well as the original tools that the Adobe program provides.	Concerns about the work Adobe's tools produce revealed that designers had high expectations of Adobe's Assistive tools that were not met and are not improving their productivity.
6	What level of trust do users have in the accuracy and reliability of Adobe AI tools in assisting them with their creative tasks?	Many designers mentioned inaccuracies in work produced by AI, such as additional limbs, design elements, and errors they have to go back and correct. Designers are concerned that the AI programs are also not stating if there were copyrighted images or design elements used in the assistive features.	Having copyright issues could mean that a publication could end up being sued or get in trouble with other publications.

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2 | *Perceived Impact on Work*

Whether Assistive AI is seen as a more efficient option depends on the quality of the AI output. If it's good quality efficiency is improved.

Several participants found the AI tools in Photoshop and Indesign helpful for efficiency, but they couldn't get a consistent quality for use, often having to retouch the design after applying the AI tools. However, the AI process was still faster than manually making the design changes.

Designers need more instruction on how to use Assistive AI to its full potential.

Participants believe in the potential of the Adobe Assistive AI software, however they would like to see additional improvements made to the software; furthermore, designers feel more instructions on how to best use the software would help them feel more confident in using the software.

The possibilities that AI bring to designers are more about saving time than changing creative workflow.

Participants are mostly concerned with using AI tools to save time in their work flow. They want to be able to carry out their creative ideas with the AI tools quickly rather than using AI to give them ideas.

Designers' workflow was affected by Adobe's lack of instruction on how to prompt.

Designers believe that education on how to prompt when using Assistive AI tools would make them more effective and benefit their workflow.

"I also think that Photoshop could do a better job of like telling me **how it works**. They have a tutorial, and I've been through it, but it doesn't tell you like what kind of prompts like work **most effectively**"

— Participant 4,
graphic designer

"But I also think that it's as far as being perfect. It's probably at like **60%**, because it does take **a lot of prompts**, and it does."

— Participant 1,
visual graphics designer

"So being telling the system to be precise, typically, artists are precise. And so trying to get trying to **learn** and teach an AI unit. To also be precise is a little difficult and **halts the creative process**."

— Participant 3,
photographer/videographer

4/6 users discussed a lack of instruction when using Adobe AI's prompting tool.

Retouching due to dissatisfaction increased the time it took to use the tools and complete designs

In Adobe Photoshop, frequent users expressed frustrations with the AI tools because of the amount of editing and retouching they had to do to designs after the AI finished.

"AI is there, **but it comes at a price of how efficient you're going to be with the AI features** like realistically you're not going to be able to do like 200 photos, you know, like in a night because of the fact that the A.I. features take a minute, they take some time."

— Participant 7,

photographer/videographer

"**I think, it's (the remove tool) more helpful than the generative fill tool.** By trying to have the AI create something on top of it or generate it into the photo, you can do it quicker by just removing it."

— Participant 1,

visual graphics designer

"When you first start, **it's pretty slow**. I think for this, like depending on how much you want to take out of the picture, you know, like with the game, with the amount of grain that's in it, **the more grain you take out, the longer it's going to take for the software to be able to take it out and use the AI to get rid of it."**

— Participant 7,

photographer/videographer

5/6 discussed the amount of time it took using the AI tools on Photoshop.

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Designers believe AI increases the possibilities of the designs...

Designers believe the tools are better than the equipment that currently exists and has potential to great things.

"If there were other tools that came out that could use AI to **shorten the process,** or maybe even do a **better job than I could manually** without a lot of effort."

— Participant 2,
UI/UX designer

"Now I have the ideas of expanding on work that I've already created and that saves me time and to focus on stuff I'd rather focus on. So **it's more of an assistant of time then it is an assistant of creativity**."

— Participant 3,
photographer/videographer

"Sometimes with the creative process, there's blockage and **you have an idea and are not sure how to execute it**. I wish there was a tool where I have this vision, therefore AI helps me get to that vision kind of thing. I don't know how that would quite work, but **my thoughts and AI connect** and then **proceed to teach me how to do it on my own**."

— Participant 3,
photographer/videographer

4/6 users discussed AI possibilities

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... and want more fine control over the outcomes provided by Assistive AI in their workflow.

Designers wish to have more control over the AI outcome they get in their designs.

"It definitely has a young stage feel to it. I can see this in 10 years being something pretty spectacular, but **for right now it's pretty young, almost in a beta sense**."

— Participant 3,
photographer/videographer

"I kind of **like knowing what I'm going to get** and have a **little bit of control over it regardless**."

— Participant 2,
UI/UX designer

"**I wish it's easier to adjust**, you know. Maybe it **creates layers** or something like that. But it's it's alright."

— Participant 3,
photographer/videographer

3/6 users discussed control in Adobe AI tools

Findings Summary

	RESEARCH QUESTION	FINDING	RECOMMENDATION
1	What benefit(s) do visual designers believe Adobe's Assistive AI provides them as they work in Adobe programs?	Designers believe AI increases the possibilities of designs... ...but want more fine control over the outcomes provided by assistive AI in their workflow.	Software needs to be more developed and focused on user interface, so user are aware of how to best utilize AI tools.
2	What detriment(s) do visual designers believe Adobe's Assistive AI provides them as they work in Adobe programs?	Retouching due to dissatisfaction increased the time it took to use the tools and complete designs.	Optimizing the AI prompting/selection will help improve the time users have to correct issues.
3	Which parts of the design process does AI interact with/impact?	Retouching due to dissatisfaction increased the time it took to use the tools and complete designs.	Fine tuning AI tools to how users are using the tools could improve satisfaction
4	To what extent does this impact the actual time spent in the design process?	Designers' workflow was affected by Adobe's lack of instruction on how to prompt.	Directing users on how to best use the tools could improve satisfaction with time spent on using AI in designs.
5	How does using Assistive AI change designers' creative thought processes?	Designers believe AI increases the possibilities of designs... ...but want more fine control over the outcomes provided by assistive AI in their workflow.	Adobe could lean into that instead trying to change the designer's creativity.
6	Does using Assistive AI allow the user to make more creative designs beyond their current skills?	Designers believe AI increases the possibilities of designs... ...but want more fine control over the outcomes provided by assistive AI in their workflow.	Focusing on making the tools easy to use could give users the skill to carry out their creative idea that they might not been able to carry out before.

3 | *Efficiency + Effectiveness*

Users prefer the experience of the manual process despite seeing the potential in AI.

Despite the time on task for AI workflows being generally shorter than time on task for manual workflows, when asked their preference between the two, users almost always chose the manual workflow experience. Users cite the feelings of accomplishment they get out of doing the workflow themselves and their enjoyment of the manual process for this choice, despite conceding that the AI workflow tended to be more efficient (though not always).

Users value the workflow they already use.

Users prefer a workflow they are used to because it is efficient, comfortable, and effective. The familiarity of the manual process is what makes it more efficient. In order for AI tools to truly gain an edge over manual workflows in terms of efficiency, the AI tools need to assist that familiar workflow.

"The manual process, you know, **it's just what we do every single day**."

— *Participant 3, Graphic Design Professional*

"[The manual process is easier, **just because I've always done it like that.**"

— *Participant 7, Print Designer*

Almost half of the time (3/7), the manual process was quicker than the AI-assisted process by 30 seconds or more.

4/7 of participants found the manual process to be more effective.

6/7 participants preferred the manual process overall.

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Generative AI tools generally struggle to understand input prompts.

When using the generative AI tools, users had to re-generate images multiple times to get a result they were satisfied with, and spent more time retouching the AI results, which negatively affected the efficiency of the AI workflow.

"Even though there's less to do, **it's not what I wanted.** ...
It looked right. It just wasn't what I was envisioning."

— Participant 4, Graphic design freelancer

"I can really see how you would have to **go back and correct things.**"

— Participant 2, Graphic design grad Student

"With Generative fill, I know you have to be **super specific and get the wording right.**"

— Participant 6, Art Director and Graphic Designer

"Sometimes it works, and sometimes it gives me a giant trash can behind someone or something bizarre. **It's not really what I wanted.**"

— Participant 1, Graphic design professional

Users had to generate their prompt 4 times on average.

Users don't want these AI assistants to do their work for them, they want the assistants they can control.

Participants value the feeling of accomplishment when a workflow is completed manually.

"I preferred the the manual [workflow] just because **it feels more genuine.** ... Anybody can [use the Photoshop AI], but I think when you do it yourself, it's not only accomplishing, but it's like... okay. I can actually do this, you know?"

— *Participant 4, Graphic design freelancer*

"**There's more influence that you can have** over [the manual workflow] as far as you know, changing the mask, and that type of thing."

— *Participant 8, Graphic design freelancer*

"[AI] takes the **human element out of building**"

— *Participant 3, Graphic Design Professional*

"The manual process would give me a lot more **control** to get exactly the vision I had for this."

— *Participant 6, Art Director and Graphic Designer*

All ratings are out of 5, with 5 being most.	P1	P2	P3	P4	P6	P7	P8
Time on manual task (in minutes):	13:25	2:57	1:46	1:46	4:20	3:00	3:05
Time on AI task (in minutes):	6:32	3:50	1:09	1:09	4:55	3:30	2:16
Number of AI generations:	9	1	2	2	7	3	4
Manual efficiency rating:	2.5	3	2	2	3	4	2
AI efficiency rating:	4.5	4	3.5	3.5	5	3	3
Manual effectiveness rating:	4	5	2.5	2.5	5	3	2
AI effectiveness rating:	4.5	3	3.5	3.5	4	4	5
More efficient process?	AI	Manual	AI	AI	AI	AI	AI
More effective process?	AI	Manual	AI	AI	Manual	Manual	AI
Preferred final product?	AI	Manual	AI	AI	AI	Manual	AI
Preferred experience?	AI	Manual	Manual	Manual	Manual	Manual	Manual

Findings Summary

	RESEARCH QUESTION	FINDING	RECOMMENDATION
1	In what ways was the AI–assisted workflow more efficient for the participant than the non–AI–assisted workflow? Or the reverse?	Though the AI-assisted workflow was faster at creating a ring, users had to re-generate rings multiple times to get the result they wanted.	Train the AI better to more effectively produce a result that users are expecting.
2	What is the time spent on an AI–assisted workflow versus a non–AI–assisted workflow?	In 5/9 cases, the AI-assisted workflow took less time than the non-AI assisted workflow.	Make it clear to users where to access AI tools that they can use, and how to use those tools in the program itself.
3	Do users feel that the AI-assisted workflow was more efficient than the non–AI–assisted workflow?	5/9 participants said the AI-assisted workflow was more efficient than the non-AI-assisted workflow.	Train the AI better to more effectively produce a result that users are expecting.
4	Are participants satisfied with the outcome of their work when using Assistive AI, or are they satisficing (settling for a lesser design just because it is easier)?	2/3rds of participants preferred the end result of the manual process as opposed to the AI-assisted process, suggesting dissatisfaction with the Assistive AI in general.	Create truly assistive AI that aids the manual process, rather than takes it over
5	Do the Assistive AI tools perform their functions in a way that is correct according to the participant's expectations?	After several re-generations users typically accept an AI result, however users do not always enjoy the result they are first given by AI.	Train the AI better to more effectively produce a result that users are expecting.
6	Do users feel that the AI-assisted workflow was more effective than the manual assisted workflow?	6/9 participants felt the manual workflow was more effective than the AI assisted	Fine-tune the AI tools to produce more accurate and effective results

Study Methods

1 | *Attitudes*

Research Goals and Questions

This study sought to understand user attitudes toward Adobe's Assistive AI

1 | Understand light and heavy users' attitudes toward Adobe's assistive AI tools

RQ1: How do visual designers feel about the general concept of Assistive AI?

RQ2: What do visual designers think AI can do for them?

RQ3: What are the primary motivations behind users' decision to use or not use Adobe's AI products in their creative work?

RQ4: Are there any specific use cases or industries where users find Adobe's AI products particularly effective or ineffective?

RQ5: How do users feel about the result of using AI on their tangible creative output?

RQ6: What expectations and concerns do visual designers have regarding the impact of using Adobe's Assistive AI tools on their creativity?

RQ7: What expectations and concerns do visual designers have regarding the impact of using Adobe's Assistive AI tools on their productivity?

RQ8: What level of trust do users have in the accuracy and reliability of Adobe AI tools in assisting them with their creative tasks?

2 | Understanding differences in attitudes associated with how long a user has been using Adobe Creative Suite.

RQ1: How do users' levels of expertise with Adobe Creative Suite correlate with their attitudes and perceptions of Adobe's AI products, if at all?

Participant Profile + Recruitment

Participants were visual designers working in design jobs or studying design at school

Participant Profile

Light User Profile:
Graphic and visual design–adjacent creators who occasionally use Adobe Creative Suite as a small part of their workflow, for example, a reporter who crops photos in Photoshop to go along with stories.

Heavy User Profile
Graphic designers and visual designers who currently use Adobe Creative Suite as a major component of their workflow, for example a photographer who edits event photos in Photoshop.

Recruitment

A convenience sample was recruited from instructor and student contacts. Potential participants were recruited using email recruitment messages and LinkedIn recruitment DMs and posts.

Participant Stats

Study included 14 participants including news designers, graphic designers, student designers, media assistants, and photographers.
  – 11 participants identified as heavy Adobe users.
  – 3 participants identified as light Adobe users.
  – 1 participant identified as heavy AI users.
  – 13 participants identified as light AI users.

Methodology

This study used an interview methodology. Participants will be asked to respond to a series of questions about their experience level with Adobe Creative Suite and their attitudes and beliefs about Adobe's Assistive AI tools.

Participants took part in one 45 minute interview, which gathered the opinions of Adobe users on the Assistive AI programs.

Participants were asked a series of baseline questions regarding their experience and expertise level with the Adobe Suite and its programs. They were then asked about their familiarity with Artificial Intelligence, and how often they use AI.

Participants were then shown a video from Adobe, which presented the program's built in Assistive AI features. Participants were then asked to give their immediate reactions to the video and were asked to state which Assistive AI features that they have used or would consider using in the future.

Participants then took part in answering a series of questions based on opinions of Adobe AI. The topics included ethics, copyright, efficiency, accuracy, creativity and overall understanding and opinion of the programs.

Limitations

Limitations of the study included:

Limited Light Users

Most of the participants used the programs on a daily basis for multiple uses.

Student Participants

29% of our participants were students when the intended participants were industry professionals.

Repetition

Often times, questions seemed repetitive, or users answered multiple questions as once. The same answer was applied to multiple questions, the phrase, "as I said before" was often heard in responses to questions.

Resources

Research Plan & Test Script

https://docs.google.com/document/d/1FWIADhZVmXm4gm8lL0WzffzNh7P4hatItLmJrp49aEY/edit?usp=sharing

Student Researchers

SPECIAL RECOGNITION

Hailey Vrolyk
Junior, Graphic Design major
Completed more interviews than
required to complete.

Ximena Portillo Cruz
Senior, Marketing major

Grace Adcock
Senior, Photographic Storytelling major

Kendall Johnson
Year, Strategic Communications: Advertising major

Riley Miller
Senior, Media Design & Development major

Hailey Vrolyk
Junior, Graphic Design major

2 | *Perceived Impact on Work*

Research Goals and Questions

This study sought to understand user attitudes toward Adobe's Assistive AI

1 | What impact do visual designers believe Assistive AI has on their workflow in Adobe platforms?

RQ1: What benefit(s) do visual designers believe Adobe's Assistive AI provides them as they work in Adobe programs?

RQ2: What detriment(s) do visual designers believe Adobe's Assistive AI provides them as they work in Adobe programs?

RQ3: Which parts of the design process does AI interact with/impact?

RQ4: To what extent does this impact the actual time spent in the design process?

2 | How does AI affect a designer's creativity in their work?

RQ1: How does using Assistive AI change designers' creative thought process?

RQ2: Does using Assistive AI allow the user to make more creative designs beyond their current skills?

Participant Profile + Recruitment

Participants were visual designers working in design jobs or studying design at school

Participant Profile

Considers themselves to be creatives and interested in new technology like AI. Uses Adobe software, such as Indesign, Photoshop, Lightroom and Illustrator. Our users understand visual design terminology, works in the digital creative field and have jobs that require these softwares.

Participant Stats

6 participants including:
- 1 graphic designer
- 1 social media specialist
- 3 photographers/videographer
- 1 UX/UI designer

Recruitment

A convenience sample was recruited from instructor and student contacts. Potential participants were recruited using email recruitment messages and LinkedIn recruitment DMs and posts.

Shared Retrospectives

Photo Edits : remove background, remove person, expand background

Methodology

This study used an interview methodology

We held 45 minute one-on-one sessions with 6 participants who fit the profile of the user.
In these sessions, we asked the users to:

1. Guide us through their Adobe Workflow
Participants demonstrated their Adobe workflow and were asked several questions about their experience and were be prompted to come up with ideas for how they might use AI in their design work.

2. Show and explain user created AI projects
Participants showed us work when AI has been used. Users then described the design process on how AI was used. The main goal is to have the user explain the interaction between AI and the work they did.

In order to observe the user, their workflow during Part 1 was be recorded. All of the comments made by the user during Parts 1 and 2 were also be recorded. Call transcripts will be recorded to Zoom's Cloud Recording Platform. Personally identifying information were be removed from the transcripts and they were be uploaded to the Optimal Workshop platform where themes will be mapped.

Limitations

Limitations of the study included:

Small Sample Size

The study only included 6 participants which gave us a small data set to work with.

Advanced Knowledge Required

Our retrospective interview required some more advanced knowledge and experience with Adobe programs; therefore, it was difficult to recruit the right type and amount of participants for our study.

Beta Software

This software is relatively new to Adobe, so there are a limited number of individuals to choose from; furthermore, because this software is so new, it is more likely to have issues using it that have yet to be fixed.

Relation to Participants

Some of our participants were familiar with our members, which could impact their responses and interactions during the retrospective interviews.

Resources

Research Plan & Test Script

Research Plan: Visual Designers' Attitudes Toward Assistive AI Tools

Student Researchers

SPECIAL RECOGNITION

Jenna Bertsch
Senior, Strategic Communication:
Public Relations
Maintained team communication
and met all deadlines.

Jenna Bertsch
Fourth-Year, Strategic Communications: Public Relations

John Klemeyer
Third-Year, Video Production

Amber Pietz
Third-Year, Photographic Storytelling

Simone Sartore-Getty
Third-Year, Media Design & Development

Jocelyn Strong
Fourth-Year, Strategic Communications: Advertising major

3 | *Efficiency + Effectiveness*

Research Goals and Questions

This study sought to understand user attitudes toward Adobe's Assistive AI

1 | Compare the efficiency of the users' workflow with and without Photoshop's AI tools.

RQ1: In what ways was the AI-assisted workflow more efficient for the participant than the non-AI-assisted workflow? Or the reverse?

RQ2: What is the time spent on an AI-assisted workflow versus a non-AI-assisted workflow?

RQ3: Do users feel that the AI-assisted workflow was more efficient than the non-AI-assisted workflow?

2 | Compare the effectiveness of the users' workflow with and without Photoshop's Assistive AI tools.

RQ1: Are participants satisfied with the outcome of their work when using Assistive AI, or are they satisficing (settling for a lesser design just because it is easier)?

RQ2: Do the Assistive AI tools perform their functions in a way that is correct according to the participant's expectations?

RQ3: Do users feel that the AI-assisted workflow was more effective than the non-AI-assisted workflow? (effectiveness is defined as the accuracy and completeness by which users can achieve their intended goal).

Participant Profile + Recruitment

Participants were visual designers working in design jobs or studying design at school

Participant Profile

- Professionals in the visual design industry such as art directors at ad agencies, professional marketing or brand photographers, etc.
- Relatively AI-neutral attitudes
- Familiar with Photoshop
- Around 20-50 years old

Participant Stats

7 participants including:

- 6 graphic designers
- 1 design student

Recruitment

A convenience sample was recruited from instructor and student contacts. Potential participants were recruited using email recruitment messages and LinkedIn recruitment DMs and posts.

Methodology

This study used an interview methodology

1. Part 1: Manual workflow
Participants were presented with a fake wedding venue ad, along with a task to complete (impose a wedding ring onto the left hand ring finger). Participants imposed a new element onto the photo manually.

2. Part 2: AI-Assisted workflow
Using the same ad as before, participants were asked to complete the same workflow using AI assistance. Participants then imposed a new element onto the photo using the generative fill tool.

3. Part 3: Interview and Survey
Participants were asked whether they preferred the AI-assisted workflow or the manual workflow.
Participants were asked which workflow they felt was more efficient and why.
Participants were asked which workflow they felt was more effective and why.
Participants were asked if they would integrate AI tools into their workflow (if they have not already) and why or why not.

Methodology

This study used an interview methodology

We measured efficiency according to the time spent on task, while noting errors made along the way that impacted efficiency or effectiveness. We also administered verbal surveys to participants to understand their preferences for AI-assisted workflows versus manual workflows.

Participant sessions will be held on Zoom and call video, audio, and transcripts will be recorded to Zoom's Cloud Recording Platform. Personally identifying information will be removed from the transcripts and they will be uploaded to the Optimal Workshop platform where themes will be mapped.

Methodology

Participants were given the following materials during the test. They were given the following scenario: " I want you to imagine that you will be designing an ad for a wedding venue for a client. The client has a first draft of their ad and needs a designer to make some changes for the final product. The client would like a wedding ring to be added to the model's left hand ring finger to make it clear that the model is married."

Manual Workflow

Base ad, + ring photo to impose

AI-Assisted Workflow

Base ad only

Limitations

Limitations of the study included:

Small sample size

The study aimed to survey 10 people but was only able to survey 7.

Familiar sample size

The sample was partly composed of individuals known by the recruiters.

Experience mismatch

Some participants were students, and did not have the experience of professionals.

Lack of Adobe AI Experience

The majority of participants have never used Adobe's AI tools before this study and were not confident in how to use them during the test.

Resources

Research Plan & Test Script

[Research Plan: Comparing the Efficiency and Effectiveness of Assistive-AI Features in Adobe Photoshop](#)

Student Researchers

SPECIAL RECOGNITION

Meghan Holt
Senior, Media Design & Development major
Meghan spearheaded the development of this study's test protocol and script.

Maggie Manor
Senior, Media Design & Development major

Ariana Otten
Junior, Journalism major graphic design and web design focused

Millie Toone
Senior, Strategic Communications Major

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Thank you

This report was created by students in **EMDD 215: Usability** at Ball State University in fulfillment of their final project for Fall 2023.

For more information about Ball State's EMDD (Media Design & Development) program or this research, please contact the course instructor Megan McNames at **megan.mcnames@gmail.com.**