Designers collaborate with AI for better UI/UX

When you hear artificial intelligence (AI) discussed in the news, it’s usually related to new technical achievements in how large sets of data can be organized and understood. But the value of AI goes beyond just data science and can actually extend into other realms like web design.

Normally, web design is thought of as a purely human endeavor, like a form of art that is mostly reliant on creativity. However, advancements in AI have opened up an opportunity for designers to collaborate with smart computer systems to develop user interface (UI) and user experience (UX) content in a more efficient manner.

Let’s explore how AI and machine learning (ML) are used in web design today and how we can expect these two fields to blend in the future.

Basics of Artificial Design Intelligence

The web development community uses the term Artificial Design Intelligence (ADI) first popularized by site builder Wix to describe how new automation technologies contribute to UI and UX work. This change in how professionals approach design methods has skyrocketed in popularity during recent years. Companies like Adobe have even begun to experiment with machine learning to build AI-centric design tools.

Obviously, design has evolved light years since the early days of the world wide web. Back then, webpages were manually coded in HTML while designers tried to determine what colors, fonts, and styles worked best in an online environment. This was a period of great experimentation, marked with plenty of failures and lessons learned.

As the internet matured, common design strategies and best practices emerged to help developers create a consistent experience for users. At the same time, back-end servers have come to rely on automation to build dynamic web-based applications. The ADI movement combines these two concepts to elevate how UI and UX design is accomplished.

Pattern Recognition

Much of modern artificial intelligence is based on a concept called machine learning, where a team compiles a wide range of data and lets a computer network analyze it through a sequence of algorithms. The goal is for the AI system to identify patterns and trends that might not be readily evident to a human.

Early ADI adopters realized that decades of web design experiments – successes and failures – could serve as a useful data collection to run through algorithms. The result has proven to be a powerful tool when it comes to humans collaborating with machines to improve UI and UX.

Consider logos: They're the foundation of development projects. Back at the birth of the internet, companies would create their own image file to serve as a digital logo. Time passed and some organizations realized they could outsource that task to experts in branding and web design. But still, it remained a purely manual effort.

Fast forward to today and designers leverage logo-makers that run on an AI system. Thanks to the massive data sets that algorithms have already crunched, the process is now as simple as answering a few questions, filling in a few criteria, then waiting for the system to propose different designs. This logo-while-you-wait process relies on the AI engine to analyze the latest logo trends to develop something that fits your company's needs.

Designing in the trenches – WordPress: If you work in WordPress, and it's hard to avoid it, you'll be elbows-deep in artificial intelligence and machine learning plugins before you realize it. There is a true explosion of new products hitting the market in this area, ranging from spam detectors to grammar improvement to a variety of recommendation engines.

A common scenario is a small business owner builds a website on a DIY platform like Wix and then realizes the extreme limitations, so asks you to migrate their website to WordPress, spiff it up, and turn it into a cash cow. Before you realize it, AI and ML are your project partners.

Integration of Tools

Web design is not just about colors, fonts and logos. The best websites in the world deliver a positive UX experience for each visitor. This means that when a person arrives at a website, they are easily find what they are looking for thanks to the combined design power of humans and AI.

One of the primary goals for AI and machine learning when it comes to web design is to make the UI and UX personalized for each user. Not all people agree on what display or set of features is best, especially if they come from different places on the planet and speak different languages. But AI makes it possible for designers to create flexible templates that adapt to the person using them.

Web developers have realized that they can integrate AI-based tools directly into their designs to add value for users. For

example, users may want to edit PDF documents directly in their browser. In bygone days, that would have been a tall (or impossible) order, but with AI and machine learning doing the heavy lifting, content can be ”visually” extracted from third-party files and made easier to manipulate on-the-fly, even in a document format formerly considered to be locked-in.

Another design feature that can be AI powered is an in-browser chat tool. Businesses that sell goods or services online often want to provide a way for their customers to get quick support. With an AI-based chat tool, this digital customer service representative can answer questions and point the way to useful information, often finding solutions without having to escalate their query to a human.

Privacy Considerations

You can’t talk about the data that powers AI and ML in today’s world without talking about how to protect it. Proper collection, storage, and use of data is no longer simply an ethical question. With the stringent GDPR regulations put into play in 2018, and the accompanying fines for misbehavior, it’s a financial survival question as well.

How far has AI come? It’s getting perilously close to being able to consistently hack the vaunted Captcha plugin using machine vision. Heretofore Captcha has served as a trusted website gatekeeper against automated spam but appears to be on the verge of becoming obsolete.

Consider implementing the following precautions when working with AI/ML in your own online life and suggest clients do the same when you hand off a completed site:

1 Almost every site collects some sort of data that falls under GDPR bur few site owners take the time to properly secure themselves against the latest smart malware attacks. A WordPress maintenance plan costs a little bit but removes that

particular worry. It’s exactly what it sounds like – outsourcing your security. For some, it’s well worth the peace of mind to bring in experts.

2 If you’re a freelancer or work for a company that collects customer data, you should already have a virtual private network (VPN) in place to keep hackers from stealing or corrupting your information. Already in use by 25% of people who go online, VPNs are rapidly becoming the de facto method of protecting all the info an insatiable AI algorithm needs to become smarter.

3 Don’t sign up for any AI tool that doesn’t clearly spell out their privacy policy for how they will use your data. Avoid any sort of machine learning experiment that requires private information like a home address or social security number.

The Bottom Line

The advancement of AI/ML will continue to revolutionize all areas of technology, including web design. And we shouldn’t depart the premises without allaying fears that the end game of this technology is to replace designers. That’s not the likely outcome of all this – at least not in any foreseeable iteration of the industry.

Instead, what we can anticipate is for web designers to begin trusting AI as an augmented partner, using it to accomplish repeatable tasks in an efficient way. This frees the designer to focus on the creative tasks that no amount of AI can simulate and benefits the end user, which is the ultimate goal.

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