

AN UNOSQUARE GUIDE

Design & Tech Trends for 2024

13 DESIGN & TECH TRENDS

Design and technology trends are constantly evolving, mirroring the dynamic landscape of customer preferences and technological capabilities. While there are fundamental principles when it comes to good user interface and user experience design, understanding trends in how designs are created and what today's users expect and value is critical for increasing customer engagement and retention.

As we look ahead to 2024, several key trends are poised to reshape how we develop, deploy, and manage software. Let's dive into these transformative trends.

01

AI & Machine Learning Integration

In 2024, these technologies are not just trends but inescapable realities, fundamentally redefining the software development landscape.

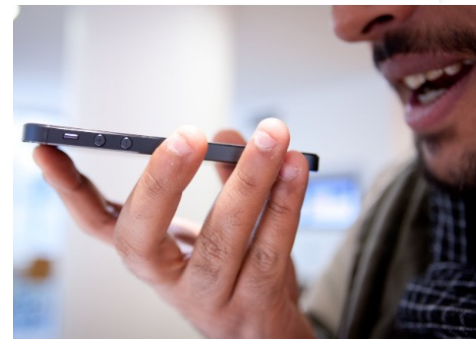
A prime example is the use of AI in crafting sophisticated chatbots for customer support, streamlining interactions, and boosting efficiency. Chatbots will have a distinct impact on users' online experiences in 2024, increasing the amount of personal information shared through interaction with more bots. On the other hand, ML is revolutionizing fraud detection with its advanced algorithms. Integrating AI and ML is not just a trend; it's a paradigm shift, making software more intelligent and intuitive.



02

Voice User Interface (VUI)

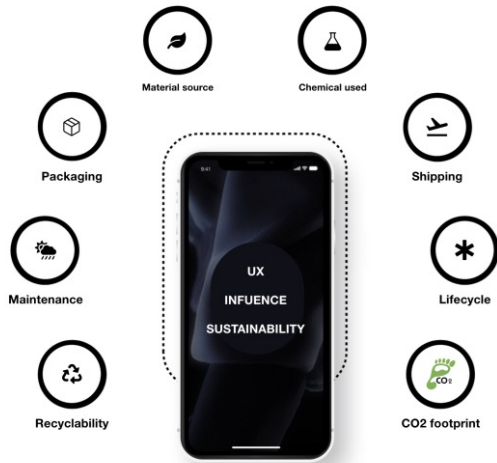
Voice user interface is a type of voice recognition technology that allows users to interact with computer systems, smartphones, or other devices through voice or speech commands. In 2024, expect to see a rise in voice-controlled interfaces and AI-powered assistants. Interestingly, the increasing adoption of technology in the healthcare sector is the key factor driving the growth of the market. Technavio reports that the Voice User Interfaces (VUI) Market size is estimated to grow at a CAGR of 23.39% between 2023 and 2028. The market size is forecast to increase by USD 50,731.16 million.



03 Sustainability

UI/UX might not be the first thing that comes to mind when you think about sustainability efforts, but several movements toward a cleaner, greener tomorrow are accelerating rapidly in the UX/UI space. In 2024, UI/UX designers and web developers will play a critical role in promoting sustainability by using resources wisely and designing digital products that are energy-efficient.

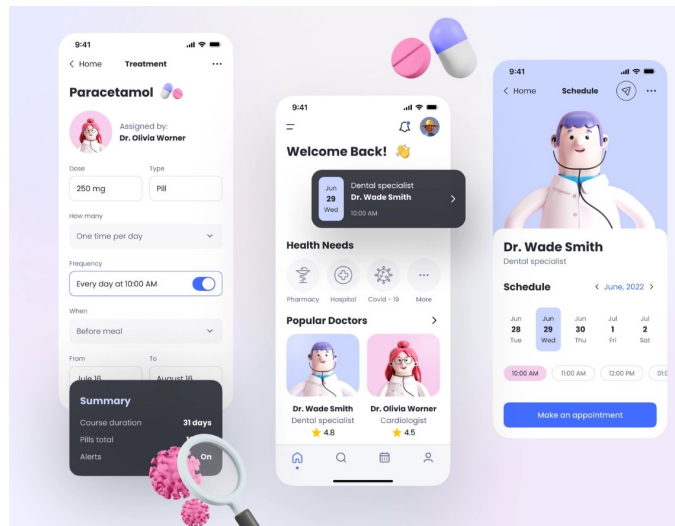
For example, designers can use dark mode, reduce the number of animations, and use efficient algorithms to reduce the environmental impact of digital products. Finding opportunities to minimize plugins, animations, and unnecessary content without taking away from the user experience, can reduce load time and therefore use less energy.

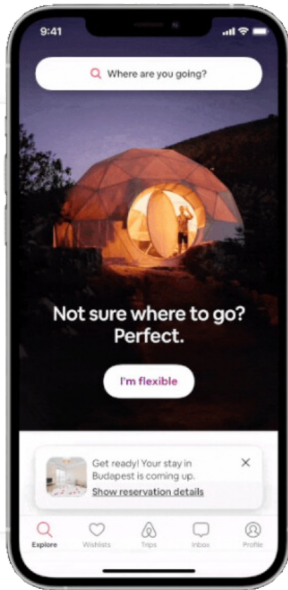


04 3D Design

While 3D Design has gained popularity in recent years, the field of 3D design is set to make significant strides in 2024. Advancements in software and technology are enabling designers to create stunning 3D visuals that add depth and realism to their designs.

Expect to see more immersive and interactive interfaces, such as 3D maps, virtual reality interfaces, and spatial navigation tools. This will have a significant impact for businesses who are early adopters as they can leverage 3D elements to showcase products and features in more interesting ways, leading to increased user interaction and potentially boosting conversion rates.





05

Micro-interactions

Advanced animation libraries like Lottie and CSS animations will ensure meticulous attention to detail. Micro-interactions are all the small icons and features that are critical in ensuring an application is simple to use. In 2024, Micro-interactions will be a major focus, offering simplified feedback, smooth transitions, and micro-animations that will add finesse and sophistication to designs.

06

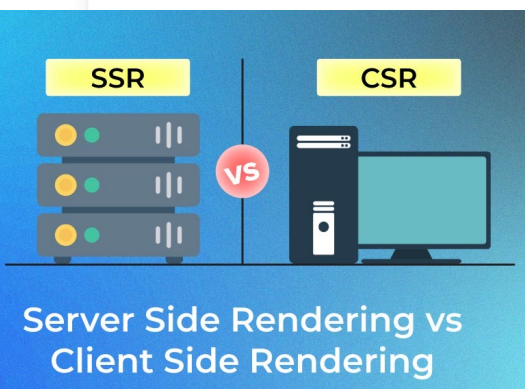
Compliance, Accessibility, and Ethical Design

As businesses across the world continue to adopt inclusive design philosophies the trend to ensure equitable access for all will be a major focal point in 2024. Expect to see a significant shift towards more socially responsible and human-centric design practices, such as voiceover and text-to-speech AI, that will assist in guaranteeing full compliance with accessibility standards and regulations.

07

Server-Side Rendering (SSR)

Server-side rendering (SSR) capabilities are rapidly becoming more and more prominent. SSR is not new, but there's been a shift in the industry to move logic back to the server. In 2024, emerging frameworks will make it easy for front-end developers to take the tools they use for building client-side experiences, like React, and use them effectively to render content on the server. For the end user, server-side rendering offers a major benefit over client-side rendering (CSR) frameworks-it delivers ready-to-go content to the browser, faster and offers a slough of SEO benefits that CSR (in most scenarios) can't match.



08

A Seamless Blend of DevOps and DevSecOps



DevOps, the synergy of software development and IT operations, is evolving. Enter DevSecOps – an extension that integrates security into the software development lifecycle. This holistic approach ensures that security is not an afterthought but a fundamental development aspect. It's about building functional, efficient, secure, and resilient software. As cyber threats escalate, this integration will be critical in safeguarding software applications and protecting user data.

09

Signals

Signals are increasingly getting popular and are a part of many modern web frameworks, such as Solid.js, Preact, Qwik, and Vue.js. Reactive programming, in addition to performance enhancements, makes the developer experience much simpler, helping them focus more on building components for UIs rather than worrying about dealing explicitly with performance optimization.

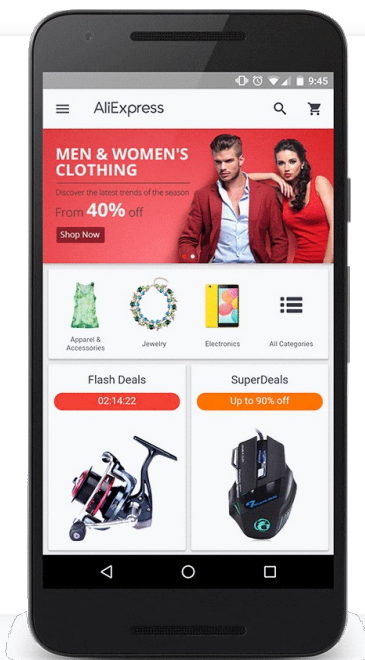
10

Cross-Platform Functionality

2024 will see more support for emerging technologies that will make cross-platform compatibility more accessible.

Technologies like Flutter and React Native will empower cross-platform compatibility, allowing single-codebase development for native experiences on various platforms.

Progressive Web Apps (PWAs) will take center stage, redefining digital strategies for most industries, especially retail and ecommerce.. In retail, they enhance shopping experiences with faster load times and offline access PWAs leverages both web-based and native mobile technologies to provide an app-like experience to users without requiring them to download or install an app from an app store.



11

Low-Code and No-Code Platforms

Here's a game-changer: low-code and no-code development platforms. These platforms democratize software development, enabling individuals with minimal coding experience to create applications. This trend is a boon for businesses, allowing them to develop software applications in-house without the hefty price tag of hiring specialized developers.

Low-code and no-code also make web development more accessible for creatives and non-technical product owners at the proof of concept and MVP stages of software planning and engineering. It's about simplifying the complex, making technology accessible to all, and unleashing creativity and innovation in software development.

12

Cloud Computing: The Sky's the Limit

Cloud computing continues to soar in popularity and accessibility to personal users and small to enterprise companies. It allows businesses to access computing resources via numerous "cloud" sources, eliminating the need for costly hardware and software maintenance.

This model is not just a cost-saver; it's a scalability enabler, allowing businesses to adapt and grow without the traditional technological constraints. Cloud computing is becoming the backbone of modern software operations, providing a platform for innovation and expansion and increasing rolling subscription revenue for cloud providers.



13

Edge Computing: Bringing Data Closer to Actions

As we generate and consume data at unprecedented levels, edge computing is emerging as a critical trend. This form of computing enhances application performance and responsiveness by processing data closer to where it's generated – at the "edge" of the network. It's a paradigm shift that reduces internet bandwidth usage and accelerates decision-making processes. Edge computing is especially crucial in IoT and real-time data analytics, where every millisecond counts.

Onward...

From AI and ML revolutionizing software capabilities to the rise of low-code platforms democratizing development and 3D Design to cross-platform functionality, the future is bright and brimming with potential. As we embrace these trends, we shape software and reshape the world.



About Unosquare

Since 2009, Unosquare has partnered with global innovators and technology leaders to solve complex problems with transformative digital user experiences and to help build and scale their teams to meet their business challenges.

With proven experience Financial Services, Medical and Life Sciences, Digital Products and Tech Enabled Solutions, Unosquare is a full-service product development firm with end-to-end capabilities that include Design, Development, and Engineering Services. Learn more at www.unosquare.com.

