

Abstract

PRISM AI BROWSER

Modern web browsers primarily act as passive tools for accessing information, offering limited intelligent assistance while browsing. With the growing demand for productivity, accessibility, and privacy-focused AI systems, there is a need for a browser that can actively assist users without relying heavily on cloud-based services.

This project presents Prism Browser, an AI-powered agentic browser, privacy-centric web browser built on a Firefox-based engine that enables intelligent, voice- and prompt-controlled interaction with web content. Prism integrates large language models (LLMs) to perform tasks such as website navigation, content understanding, browser automation, and system-level assistance.

The system employs agentic AI capabilities to interpret natural language commands and execute multi-step actions within the browser environment, enhancing user efficiency and accessibility. Key features include Agentic AI execution, voice-to-text control, intelligent tab and settings management, and extensibility through modular browser extensions.

Overall, Prism proposes an intelligent browsing framework in which AI is integrated directly into the browser environment to support user interaction, automation, and accessibility. The project demonstrates the feasibility of combining agentic AI capabilities with a modern browser architecture to deliver a secure, efficient, and user-centric web experience.

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