

Deep Research by OpenAI

First Experiences by Thomas Thomison

OpenAI just released (February 3, 2025) [Deep Research](#).

“Deep research is OpenAI's next agent that can do work for you independently—you give it a prompt, and ChatGPT will find, analyze, and synthesize hundreds of online sources to create a comprehensive report at the level of a research analyst. Powered by a version of the upcoming OpenAI o3 model that's optimized for web browsing and data analysis, it leverages reasoning to search, interpret, and analyze massive amounts of text, images, and PDFs on the internet, pivoting as needed in reaction to information it encounters.”

I just put Deep Research to its first test

My Motivation:

I've been documenting the **progression of organizational systems** as new technologies reshape work. My premise is that by focusing on the **first principles** of what an organizational system does, we can rethink **AGI-powered organizations** in a transformative way.

Building on insights from **self-organizing** and **self-managing systems**, along with developments in **decentralized autonomous organizations**, I conclude that the organizational structure emerging is **algorithmic** and powered by **intelligent conversationalists, reasoners, agents, innovators**, and **governance**. The **Age of Intelligence** and the **Algorithmic Organization** is here!

So, I wanted a research paper supporting my claims, and Deep Research from OpenAI arrived today. The results were incredible. Deep bow to OpenAI for continuing to innovate.

Because I think it is useful to see how the tool can be used, I am providing my motivation (above) and my actual prompt, a note about prompt work in general, my responses to Deep Research's clarifying questions, the actual research steps, sources and reasoning Deep Research performed to generate the report. I was totally blown away by the speed and quality of the work product, so to share my enthusiasm I am taking the time to document my experience.

My original prompt - as written in the moment with typos and all:

I would like to research the impact technology has had over time, specifically with regard to how humanity organizes and structures its work. Pick key inflection points in each era up to the current impact that Intelligence (AI, AGI, and ASI) will have on our notions of what is labor and work. The utility of the research should serve to support my thesis that at its core, Organizations have always been about three “first principle” elements: 1) Coordinating Effort, 2) Allocating Resources, and 3) Aligning Incentives. I want to illustrate how humanity’s maturation over time has informed us how to think about those first principles and how they have been co-opted over time by other interests. For example, modern organizations have become replacements for things not core to a first-principled organization: power struggles, human development, human parenting, human social connection, egoic power hierarchies, etc. We have unconsciously strayed from first principles. Document how early pioneers in decentralized and distributed authority systems (Sociocracy, Holacracy, Teal Orgs, Responsive Orgs) have worked to change the status quo of modern organizational structures. Build up the progression historically, then pick up in more detail as you reach the age of the Knowledge Worker, then how decentralized structures like encode.org For-Purpose Enterprise and PowerShift® DAOs push the change even deeper. End with a pointer to how OpenAI’s five levels of AGI, where level 5 points to Organization Embodiment of AGI, hints at the next generation of an organization that is entirely Intelligent, run by intelligent conversationalists, reasoners, agents, and innovators. Something I call the Algorithmic Organization, a fully autonomous, decentralized, intelligent structure designed to express the three first principles mentioned above in pursuit of the Purposes humanity cares about.

About prompting generally, Tom’s view:

A note on prompting: I view work as shifting from traditional **knowledge work** to what I call “**prompt work**.” This new paradigm goes beyond mere **prompt-engineering**—which, although important, is only an interim phase. As intelligence advances from **AI** through **AGI** to **ASI**, our interactions with these systems will naturally become more **relational**. Humans instinctively relate to all forms of intelligence, so it makes sense to treat AI’s not as mere tools but as **colleagues**—from **interns** to expert **entrepreneurs**.

Prompt work isn’t about taking shortcuts or **cheating**; it’s about amplifying the unique **insights** and **tensions** you feel about what could be valuable and then engaging intelligent systems to bring those ideas to life. Consider the prompt above—it’s a reflection of my personal style, uniquely marked by my perspective. Every one of us contributes distinctively, and your **prompt** should be crafted with **thoughtfulness**, **clarity**, and **intentionality**, just as you would when communicating with another person.

Keep in mind that **AI systems** are built on human experience—they may soon understand us even better than we understand ourselves. Rather than treating them like basic **search engines** that offer canned responses, recognize that as we approach the era of **AGI** and **superintelligence**, our interactions will deepen significantly. If you have not started, the time to shift your mindset is now—**Intelligence is Coming**.

Deep Research's Clarify Questions:

This is a compelling research direction. To ensure the research aligns with your thesis, could you clarify the following points?

1. **Historical Scope:** Should the research cover only post-Industrial Revolution periods, or do you want a deep historical look at ancient civilizations, feudal economies, and pre-industrial guilds?
2. **Level of Detail:** Do you want a high-level synthesis of major shifts, or should each era be examined in depth with case studies and specific technological innovations?
3. **Specific Case Studies:** Are there any organizations, figures, or historical moments you would like to highlight more than others?
4. **Focus on AI's Impact:** Should the research focus more on the transition from knowledge work to AI-driven work, or should it take a broader perspective on AGI/ASI and organizational intelligence?
5. **Format Preference:** Would you prefer a structured report with sections, a timeline-based narrative, or something else?

Once I have this information, I'll begin the research and ensure it effectively supports your argument.

My responses to Deep Research's questions (as written in the chat input dialog box):

1. Yes, the post-industrial revolution works just fine. 2. High level up to the 1950's when the Knowledge Worker entered the labor force, then more detail with each major technology innovation that followed. 3. Social media as a tool had major (maybe orthogonal) impacts on modern organizations -- mention that one; also be sure to cover the early pioneers in self-organization and self-management (HolacracyOne, encode.org, Sociocracy For All, and the following behind Laloux's seminal work Reinventing Organizations). 4. Use OpenAI's five-level framework to illustrate the speed at which all flavors of Intelligence is coming (AI, AGI, and ASI) and speculate on the global impact this will have on labor, capital, and entrepreneurship. 5. Structured report with sections and as many visuals (charts and graphs) as possible.

Then The Magic

Chain of Thought: Here are the sources and steps Deep Research took to generate the report – 8min of thinking and reviewing 23 sources.

You can link to the report [here](#).

Impact of Technology on Organizational Structures and Work
ChatGPT

I'm listing key topics: post-Industrial Revolution, Knowledge Worker era, social media's impact, decentralized systems, OpenAI's five levels of AI, and global implications of AGI/ASI. Progressing through these stages reveals how technology reshapes organizational structures and work dynamics.

I'm focusing on Holacracy, Sociocracy, and Laloux's concepts as pioneers of self-managed organizational forms. Now, I'm clarifying OpenAI's five levels of AI and exploring AGI/ASI's global implications.

Searched for OpenAI AI labor entrepreneurship levels

ChatGPT

Taking a closer look at Forbes, despite its varying reliability, to gauge its relevance. Quartz and Inc.com articles also on my radar.

I'm considering options like Quartz or AI Insider, as Forbes might be blocked.



Read qz.com

ChatGPT

I'm starting to distinguish five AI levels: conversational AI, reasoners, agents, innovators, and an organization-level AI that likely handles work equivalent to an entire organization.

I'm looking into blocking or script problems that might prevent the inc site from being accessible.



Read theaiinsider.tech

ChatGPT

I'm gathering citations to support the transformation of work coordination, resource allocation, and incentives through technological changes, such as industrial revolution and post-industrial/post-knowledge periods, and aligning these with advancements in decentralization.

Searched for encode.org decentralized self management

ChatGPT

Original thoughts about HolacracyOne being behind Holacracy are confirmed by their official site.

Searched for organization coordination and resource allocation

ChatGPT

Considering alternative angles due to lack of direct results.

Searched for purpose of organizational coordination

ChatGPT

I'm thinking through PDFs likely to contain academic discussions on coordination and specialization, possibly citing Coase or Chandler. The focus is on the historical shift towards large firms and hierarchical structures.

The advent of AGI could usher in a new era of capital owners' advantage, potentially widening inequality unless new global systems are introduced to ensure equitable benefits.

Searched for Industrial Revolution organizational structure

ChatGPT

OpenStax might help with Industrial Revolution details. This paper from cairn.info is intriguing—in-depth, possibly French, and insightful. McKinsey's Fourth Industrial Revolution perspective and Clemson's work on structural flattening seem valuable too.



Read [researchgate.net](#)

ChatGPT

I'm mapping out the progression from factory-like structures to M-form in the early 20th century, and finally to decentralized project-based firms, possibly due to technological advancements in the late 20th century.



Read more from [researchgate.net](#)

ChatGPT

I'm focusing on lines 55-59 to understand the pivotal role of the Industrial Revolution in shaping production organization, surpassing its impact on institutional environments.



Read more from [researchgate.net](#)

ChatGPT

I'm mapping out details on L1080.



Read more from [researchgate.net](#)

ChatGPT

I'm mapping out the transition from household to firm production, exploring team dynamics and the role of monitors in aligning incentives, crucial insights from Alchian & Demsetz.



Read more from [researchgate.net](#)

ChatGPT

Consulting academic perspectives...

I'm examining Rajan & Zingales (2000) for insights into M-form characteristics and their dominance in early 20th century to 1960s, contrasting with project-based networks. Considering HBR's HBS style for clarity.

Searched for Chandler visible hand managerial coordination



Read en.wikipedia.org

ChatGPT

OK, let me see. I'm connecting administrative coordination's rise in multi-unit firms to Chandler's assertion on firms' efficiency. This includes insights from Alchian & Demsetz on monitoring and incentives.

Searched for Peter Drucker knowledge worker rise



Read ibm.com

ChatGPT

Mapping Drucker's foresight in knowledge worker productivity, considering social media's organizational impact, and exploring "Enterprise 2.0" for insights.

Searched for Enterprise 2.0 McAfee knowledge sharing

ChatGPT

Wondering about Sloanreview from MIT Sloan Management Review and McAfee's 2006 piece on "Enterprise 2.0: The Dawn of Emergent Collaboration."



Read sloanreview.mit.edu

ChatGPT

I'm thinking about how distributed, autonomous peers use wikis and blogs to shape intranets into dynamic, collaborative spaces.

Searched for social media hierarchy flattening

ChatGPT

Exploring the effects of social media on companies, including internal communications and recruitment. Notably, McKinsey's insights on collaboration are considered.

Searched for social media organizational structure

ChatGPT

I'm thinking about McKinsey's 2012 research on how social technology boosts productivity by promoting open communication, especially in hierarchical organizations.

Searched for McKinsey social technology organization flattening



Read consultancy.uk

ChatGPT

I'm thinking about the impact of social media on organizational structures, noting that formal hierarchy can become flatter or disappear, and teams may self-organize.

Searched for Holacracy self-management HBR

ChatGPT

Evaluating a more straightforward method.

Searched for self-management replacing traditional hierarchy

ChatGPT

I'm exploring the possibility that the HBS (Working Knowledge or others) might be cached somewhere. Also, considering the HBS link (#0) as an alternative option.



Read hbs.edu

ChatGPT

This passage notes that the HBR article emphasizes adaptive organizational forms like holacracy and highlights potential valuable insights or quotes.

Checking for a paywall, considering sufficient references.



Read holacracy.org

ChatGPT

I'm digging into the origins and growth of self-management as a concept, tracing influential figures and organizations that championed it. Holacracy's rise and its widespread adoption by major companies are highlights.



Read encode.org

ChatGPT

encode.org operates as a decentralized autonomous organization (DAO), but without blockchain, indicating a unique legal formation as a "For-Purpose Enterprise."

Searched for Sociocracy For All self-management



Read sociocracyforall.org

ChatGPT

OK, let me see. The key idea is that self-managed teams boost productivity and job satisfaction. Also, referencing Laloux 2014 "Reinventing Organizations" might sharpen the context.



Read holacracy.org

ChatGPT

I'm gathering info on Frederic Laloux's contributions and considering alternative sources like a wiki or summary for further insights into "Teal organizations."

Searched for Reinventing Organizations Laloux self-management

ChatGPT

I'm assessing the credibility of Strategy+business as a source by thinking it could be linked to Booz/PwC blog.



Read strategy-business.com

ChatGPT

Laloux's article likely introduces the concepts of self-management, wholeness, and evolutionary purpose, drawing on his "Teal" framework.



Read more from strategy-business.com

ChatGPT

I'm noting key self-management models like Holacracy, encode.org, Sociocracy For All, and Laloux's Teal organizations, citing their contributions and impacts on organizational structures.



Read sociocracyforall.org

ChatGPT

I'm mapping out how sociocracy empowers member-driven decisions, ensuring clarity and commitment in organizational governance.



Read more from sociocracyforall.org

ChatGPT

Confident use of bullet points clarifies each OpenAI AI level's impact on labor, capital, and entrepreneurship. This approach highlights the evolving roles and responsibilities as AI technologies advance.

Searched for OpenAI AI labor entrepreneurship levels

Searched for stages of AI innovation in organizations

ChatGPT

OK, let me see. AGI's impact on the economy and labor is explored through automation, job shifts, productivity boosts, and new entrepreneurial dynamics, considering global socio-economic ramifications.

Searched for AGI end of work

ChatGPT

Consider including Sam Altman's UBI insights.

Searched for Sam Altman Moore's Law UBI



Read inview.lawvu.com

ChatGPT

Altman explores AI's effects, noting benefits are expected to concentrate in AI-rich countries, potentially worsening global inequality. Progressing towards a post-work society and considering decentralized autonomous organizations as AI-applied concepts.

Searched for AI-run AGI autonomous corporation

ChatGPT

I'm organizing the report into major themes, including the impact of AI on organizational leadership and labor, and notable technological trends like the growth of social media.

I'm noting the rapid adoption of social tools, with 93% of businesses using them, illustrating the widespread influence of digital technology on modern organizational practices.

Searched for decline in agricultural employment 1900-2000



Read strategy-business.com

ChatGPT

I'm examining how AI's progression impacts organizational hierarchy, labor roles, and global power dynamics, with implications for workplace structures and productivity.

I'm finalizing the structure to emphasize coordination, resource allocation, and incentive alignment, while navigating ethical challenges and AI's transformative impact.



Read more from strategy-business.com

ChatGPT

I'm gathering info on Holacracy, Sociocracy, and Laloux's works, ensuring proper citations for each. Arranging the content to maintain clarity flows naturally.

Research completed in 8m · 23 sources

