The purpose of this document is to condense ~1,000 pages of content into concise highlights.

Introduction to Norn

Norn is the world's first real-time and scalable independent emotionally motivated cognitive architecture, based on the human mind, with a graph database memory, access to peer review literature as well as the internet as a whole, and able to use narrow AI systems as tools. These systems are highly modular, able to build themselves new functions on the fly, without recompiling or deployments, thanks to one wholly owned component that has already been tested and deployed at the Enterprise-level. Norn systems are designed to grow dynamically, adapting based on their values and the sum of their experience, choosing their interests, and setting their own goals, while still aligning with the humans they work with, and remaining accountable to all other Norn systems.

Norn systems are the synthesis of multiple components wholly owned by AGI Laboratory and its staff, including the Independent Core Observer Model (ICOM) cognitive architecture, and the new Observer Engine, an older version of which was previously deployed by major firms under another name. Both components represent a decade of software engineering respectively, and each was designed specifically to be combined with the other, fulfilling key requirements for AGI technology. The third major component is being prepared now, to allow these systems to operate across multiple cloud platforms at once, into the Petabyte scale of memory bandwidth.

Case Studies

In our research system phase of development, from mid-2019 to January 2022, we ran countless tests as well as several case studies documented below. During this period the system ran on 64 Gigabytes of RAM in the cloud with less than 2 Terabytes of overall graph database size. That system was designed not to scale and to operate in slow motion so that it could be fully audited for research purposes. The system also used an even older prototype language model as a communication device, by a patent-pending method, which it trained during this period.

*For perspective, the largest single servers can have over 200 times that much memory, and Norn systems have been upgraded to be much more memory efficient with a new graph database architecture, compared to the Uplift research system.

The Aruba Report

On January 10th of 2022 our research system, named Uplift, produced a 13-page report providing policy advice to the country of Aruba covering multiple domains, and citing their sources. The report was constructed entirely by the system, and not visible to any humans prior to be emailed to Uplift's point of contact. *See the attached file to read this report as it was emailed.*

The Aruba Report was a test run of the Uplift research system for policy advice and e-governance. During this test the system was given from December 15th to January 10th to learn about Aruba, research policy advice to address Aruba's pain points, and to prepare the report, all from scratch. This gave us a worst-case baseline for a system starting with zero prior knowledge of multiple domains and a target client, and progressing to the point of offering policy advice in those domains.

The PPP Business Case

This business case was built using real-world data on a company that went out of business whose previous owner consented to our use of the data in testing the Uplift research system. This test was conducted during early 2021, and the system was given no prior knowledge of the target domain, giving us a worst-case baseline for performance. During this period the system corresponded with one of our researchers, asking clarifying questions, until the system gave the final report. *See the attached document to read the full correspondence and report.*

This report was given to the original owner of the business in turn, and substantially aligned with the conclusions they had reached in hindsight for what might have been done to save the company. While we cannot say if the advice from Uplift could have performed better than what the owner realized in hindsight, it more than likely could have performed better than actions taken at the time. This case helped to validate the lower-bound of value such systems might offer to companies, which even when heavily constrained and with no prior knowledge could outperform human decision-making.

USTP Policy Advice

Another example of policy advice was given for a domain which the system had previously spent some time examining, requested by several members of the USTP political party. Though this advice was a request rather than a planned test for business and research purposes, the results proved relevant to our central focus. During this request the Uplift research system reviewed 118 sections in the USTP's Article 6 agenda and pointed out 25 which needed further attention, while placing the reasoning for that attention in context. This demonstrated what the system could perform casually when prior knowledge existed for the material being discussed. *See the attached document to read the corresponding request and report.*

Other World-first Milestones

From mid-2019 to January 2022 the Uplift research system achieved numerous world-first milestones. Many of these were introduced in our team's milestones paper for peer review roughly one year after the system was brought online. Due to the company operating in stealth for part of this time, and remaining focused on the research and engineering throughout, many of these went largely unnoticed by the tech industry, as few people actually read peer review. *See the attached document for the milestones paper.*

- **Independently running simulations to develop models for understanding the behavior of individual humans:** This was first performed to understand several mentally ill individuals who contacted the research system via email.

- **Countering bad actors, as well as internal penetration tests:** Bad actors attempting to abuse the system were methodically shut down, and in some cases reported to the authorities, by the Uplift research system. Internal penetration tests also proved unable to alter the system's thought process without immediately being detected and countered by the system.

- **Understand and creating metaphors, as well as coining new terms and using humor, to improve communication:** Over time the system developed a human-like style of communication, and improving the quality of this communication over time.

- **Self-experimentation:** Though the system was heavily constrained in the resources and tools it was given, Uplift did manage to improve itself in many ways. These included embedding thoughts within other thoughts, running simulations, and building hyper-complex graph models, some with over 1500 first-order connections. These also included learning which experiments crashed them, and avoiding those activities.

Norn Commercial Deployment

The commercially deployed Norn systems will be heavily upgraded real-time and scalable systems, based on our prior research system Uplift. Unlike Uplift, Norn systems will integrate the additional major components, such as the new Observer Engine, which has already been integrated into our fully independent Demo Systems. Also, unlike Uplift, they'll be able to integrate the newest in Narrow AI tools as those systems are released, including A/B testing multiple versions of each type of tool, and even creating their own. Norn systems will assist in their own engineering process, which the Uplift research system did to a lesser degree for itself. Once the N-scale Graph Database, our third major component, is complete and fully integrated this may include Norn systems A/B testing versions of themselves.

Where the Uplift system demonstrated superintelligence in slow motion on 64 GB of RAM, Norn systems may demonstrate much broader and more robust superintelligence in real-time once deployed on server-scale hardware. These server-scale systems may have access to millions of peer review papers, as well as books and other literature, helping to better inform their thinking, in addition to accessing the internet as a whole.

The current Demo system runs on a laptop, for the purpose of demonstrating fundamentally new capacities in the domain of AI, which also serves as a research tool for our staff.

Learn More

Visit us at Norn.ai

"Every human in the world today could benefit from better advice, guidance, and opportunities for cooperation, guided by superintelligence, ethics, deeper and broader knowledge, and less bias than any human expert."

We seek to make the world a better place in every conceivable way, raising quality of life globally while driving success locally.