

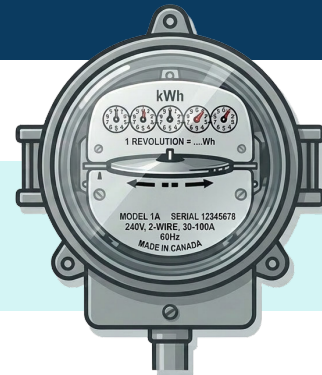
RECLAIMING THE STACK:

Cooperative AI Infrastructure for Canada's Solidarity Economy

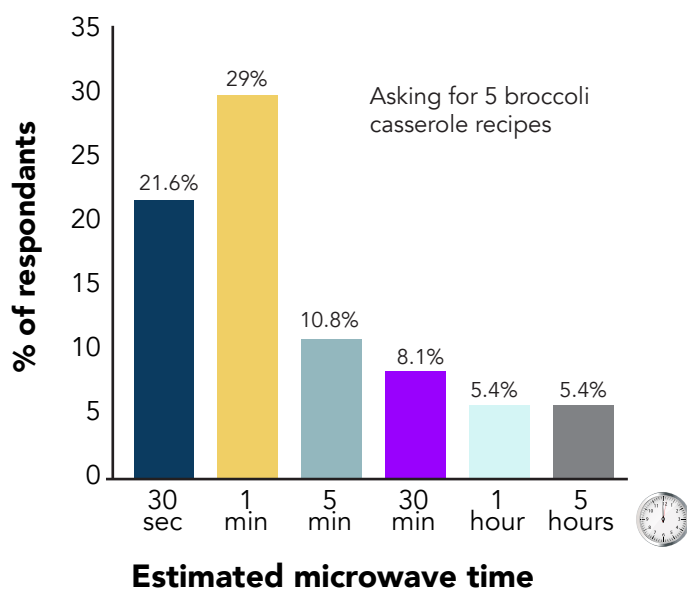
Everyone's Using AI. Almost No One Has a Plan. Survey findings from Canada's solidarity economy on AI adoption, governance, and what comes next.

How much energy does an AI query use?

We asked respondents to estimate how much microwave time it would take to match the energy of an AI prompt to generate 5 broccoli casserole recipes.



Perception



Reality



Actual measured energy equivalent, based on running the Qwen3:4b-instruct model locally on a Mac Mini M2



Hardware matters!

Local, consumer-grade hardware uses a fraction of the energy of large cloud servers. For organisations exploring self-hosted AI, the trade-offs look like this:

MAC MINI M2

- PRICE**

 - CHEAP
 - AFFORDABLE ENTRY
- SPEED**

 - SLOW SPEED
 - FOR SIMPLE TASKS
- POWER**

 - USES LITTLE POWER
 - EFFICIENT
 - LOW ENERGY CONSUMPTION

MAC STUDIO

- PRICE**

 - EXPENSIVE
 - HIGH
- SPEED**

 - FAIRLY QUICK TO PROCESS AI REQUESTS
 - MEDIUM-HIGH SPEED
- POWER**

 - MODERATE POWER USAGE
 - HIGHER THAN MINI

INTEL SERVER + NVIDIA

- PRICE**

 - COSTLY
 - MID-RANGE
- SPEED**

 - QUICK TO PROCESS AI REQUESTS
 - FASTEST PERFORMANCE
- POWER**

 - HIGH ENERGY CONSUMPTION

How does your workplace govern AI tool usage?

Of those surveyed, 67% do not know their work AI policy or there is none.

67%

Use AI as part of their daily work

32%

Have an AI policy implemented at work

46%

Have an intermediate level of knowledge of AI tools

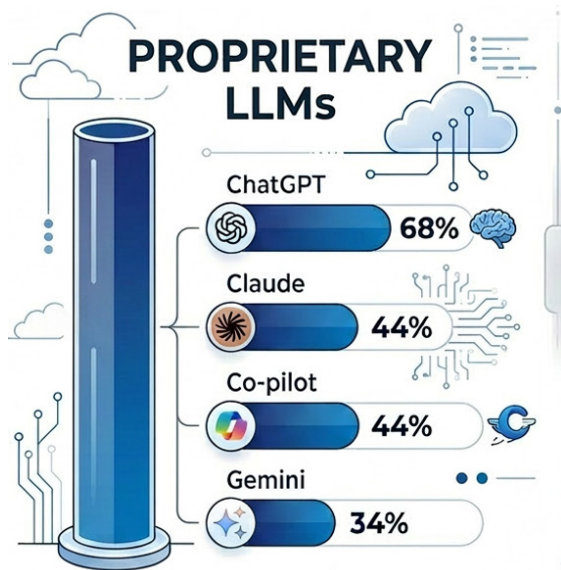
44%

Rate environmental important when choosing an AI tool

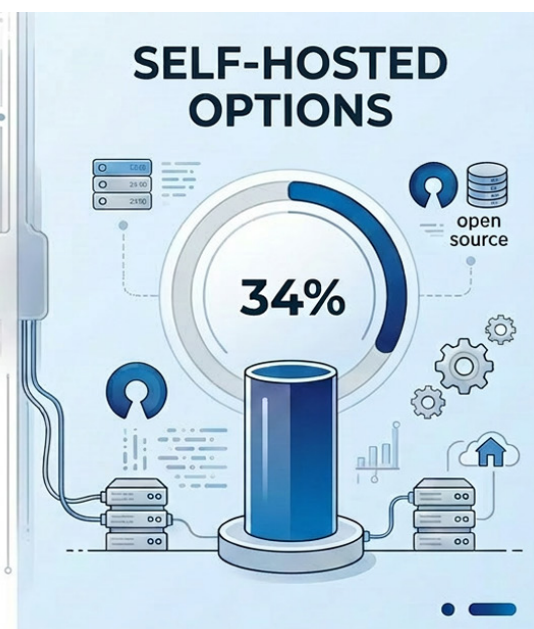
92%

Are concerned about energy consumption of AI data centers

Which models are being used?



*Percentages exceed 100% due to users selecting multiple models.



What drives AI tool choices?



Respondent's barriers to adopting new AI tools at work:



Solution: the Canadian solidarity stack

3. THE APPLICATION LAYER

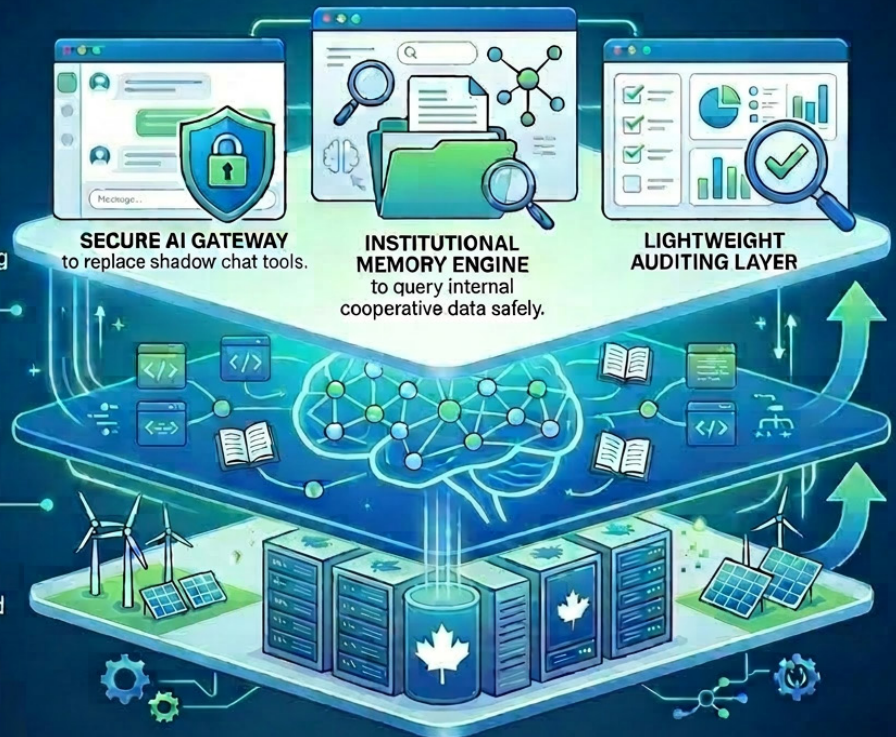
The **sovereignty suite**: everyday tools that workers need. A secure AI gateway replacing shadow chat tools, an institutional memory engine for querying internal co-op data safely, and a lightweight auditing layer to keep your organisation accountable.

2. THE MODEL LAYER

Open-source and custom models; no data extraction necessary. Built on open-weights models like Llama-3, Olmo, and Apertus. These run within Canada, with no dependence on proprietary platforms built on unpaid labour.

1. THE INFRASTRUCTURE LAYER

Community-managed AI cloud: physical sovereignty over your data via Canadian-controlled servers, pooled co-operative compute that's powered by verified renewable energy.



Parts of this infographic were initially generated using Gemini 3.1 with Nano Banana 2, and further modified using Adobe Illustrator and Adobe Photoshop.

This study was conducted by CanTrust Hosting Co-operative and Hypha Worker Co-operative with funding support through Co-operators Co-operative Development Program.

The survey was distributed by email, social media, and within our networks to organisations across the Canadian solidarity economy between November 2025 and January 2026.

HYPHA

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