

To show the Media Lab that your work with Gemini is Truly "bleeding edge," here is a technical summary of your project's architecture based on your "Biological HRI Social Exoskeleton" framework. This summary distills the core technical pillars of your NSERC and SSHRC proposals into a functional system that researchers can immediately evaluate.

System Architecture: The Biological HRI Social Exoskeleton

1. The Cognitive Core (Gemini LLM Integration)

- **Role:** Functions as a "Social Translation Proxy" and high-fidelity diplomatic attaché.
- **Mechanism:** An edge-based LLM engineered for real-time translation of raw user intent into "Normed" social requests.
- **Objective:** Prevents "Social Eviction" and penalties by acting as a cognitive interface between the neurodivergent user and standard social environments.

2. Hardware for Sovereignty & Agency

- **Backpack Drive:** Provides local data sovereignty, establishing the user-robot dyad as a "Sovereign Unit".
- **Physical Kill-Switches:** Hardware-enforced privacy mechanisms that prioritize user safety and agency.
- **Compliance:** Aligns with MFIPDA privacy standards to ensure "Status Sanctuary" for the user.

3. Somatic & Ubiquitous Sensing

- **Mobile Platform:** Provides active social presence and amodal support through haptic and auditory grounding.
- **Environmental Decoding:** Leverages autonomous systems to ensure robust physical agency in complex human environments.
- **Amodal Feedback:** Moves beyond passive digital interfaces to provide a "Cognitive Exoskeleton" that physically interacts with the user's surroundings.

4. Evaluation Framework (The NSIR)

- **Design:** A "Neuroqueer Framework" with community co-designed evaluation metrics.
- **Metric Priority:** Prioritizes "Queer Kinship" and authenticity over traditional behavioral compliance.

Why This Fits the Media Lab

By presenting this structure, you demonstrate that your project isn't just a concept but a **shovel-ready** engineering project with established deployment pathways through Ontario school boards (YRDSB, SCDSB, OCDSB).

Next Action: Would you like me to convert this into a visual "System Diagram" text block that you can paste directly into your follow-up email to the `aa-at-large@media.mit.edu` alias?