

- We have continued to meet and characterize the Index card - Nostr system.
- One next step is turning information into Index cards, and determining if it is completely compatible with Nostr as-is. Then we will be ready to proceed to the next proximate steps:
 - Composing paths of index cards (extant Nostr messages, extracted from paper, single words, etc). An example of this, is a single card as summary/extraction, another note is the corpus ID, another note is the word embedding (and then another note to embed the tuple, there can be different tuple packages provided).
 - Using semantic embeddings from LLM (and translations, summaries) to use index cards as contextual/semantic bridges.
- There are some further possibilities beyond these, however these Nostr-based functionalities above (compositionality & LLM-derived embeddings) will provide the setting for discussing those.

- what edges do we build between index cards when we are parsing a corpus and training the LLM?
 - Edge is made by connecting two unique index card ID.
 - [Index Cards](#) has JSON: Username, Text, etc — then hashes into 32 bytes, SHA256.
 - Could have ZK-knowledge intermediary.
 - Can connect to BTC (BTC ordinals with Nostr hash sequences).
 - Nostr giving DOI
- what pathways exist between index cards?
- It will be possible whether or not every index card has total metadata.
- how are index cards related to the outcome of the system i.e. [Example: Training an LLM](#)
- Grouping topics as mycelial network.
 - The resources are the original papers
 - Nodes of the mycelial network are the vocabulary.
 - Moving between the papers, not just with a citation edge. Could be with a Syntax side (e.g. bridging via a keyword [Index Cards](#)) and with a Semantic side (via the embeddings).
 - Semantic embeddings as the midpoint between two citations/texts that have different syntactic phrasing.
 - Key concept + Summary given context → Fine-graining/Coarse-graining on the semantics.
 - Cards with legible language and translation, as well as semantic embeddings.
 - Local ontologies and embeddings (e.g. “Surprise” may have some embeddings on whole-internet data and a different
 - “When I use a word... it means just what I choose it to mean – neither more nor less.”
 - Information foraging:
 - <https://academic.oup.com/cz/article/61/2/368/1792383> From foraging to autoethic consciousness: The primal self as a consequence of embodied prospective foraging

- <https://pubmed.ncbi.nlm.nih.gov/26097107/> **Foraging in Semantic Fields: How We Search Through Memory**
- <https://pubmed.ncbi.nlm.nih.gov/25487706/> **Exploration versus exploitation in space, mind, and society**
- Relays can hold the information or not.
 - Can pull notes other relays.
 - There is a request to delete sent out. No edits, or forced/verified deletion.
 - Incentives for running relays. Hobby, Identity verification, Business.
- Nostr wiki
 - First layer is the people with ability to write primary article.
 - Second relay enables access, and aggregating it with other information. Can provide commentary to primary articles.
- Could there be simpler/alternative repository?
 - [Index Cards](#) enable modular read/write/share of information. Not stored in some large blob.
 - What alternatives exist for compacted specific reference of information.
- Nostr in academia
 - Open science
 - Shared knowledge base that is open and collaborative.
 - Alternative publishing platform
 - Association with Bitcoin/other payment

- Andrew's [Nostr](#) flashcards
 - short: <https://github.com/limina1/indextr-principles>
 - expanded: <https://github.com/limina1/indextr-principles/blob/main/details.md>
 - [Template working data spec](#)
- [Index Cards](#) have an embedding, from any given language model.
 - <https://openai.com/pricing>
- Representation that can be short.
- Can be used for categorizing information that is later developed.
- Agent themselves can read/write/edit/add these cards.
- Auto-generated papers — may exacerbate the information overload, diluting the information environment.
- Don't need to worry about auto-generated content with Flashcards. Because useless ones are simply not used. Useful ones are composed together, and can have patterns (e.g. alternation of Observation, Complexity concept, Action possibility). Finding paths.
- Zettlekasten and composition/synthesis.
- Domain-specific skills (Math, Biomedical, etc)
- This helps clarify how Complexity is being used — movement and action in this space, invoking domains and disciplines as needed.
- Which paths are having short/long routes in the [Autopoietic PCA](#)?

- Paths can be analyzed for trivial features (e.g. overall length) or various subtle things (e.g. which proportion of links are novel reports).
- We want an AI to create a research paper — what is the autopoietic PCA for this?
 - Review paper — most popular paths.
 - Novelty search — least traversed paths.
- Render the content (path selected) with Figures, can do Audio/Visual