

PRIOR WORK & EVIDENCE BRIEF

Research foundation, provenance, and epistemic boundaries

PURPOSE

Document prior work relevant to the proposed fellowship without treating intellectual-property records, architecture documents, or prototypes as substitutes for independent empirical validation.

EVIDENCE CLASSES

Class 1 — Existence and authorship: documented works, authorship records, and research artifacts.

Class 2 — Academic research evidence: prior empirical research and publications independent of MENS-SCCA.

Class 3 — Technical development: architecture documents, specifications, computational prototypes, formalization, tests, and implementation records.

Class 4 — Evidence to be produced by the fellowship: external, reproducible evaluation of the trajectory-instrumentation hypothesis.

DOCUMENTED ANTECEDENTS

MENS-SCCA architectural and technical documentation, including documented master volumes and subsequent technical development.

Compendio Académico: Patrones Estructurales en Sistemas Digitales, including registered/documented volumes and operational code materials.

Blind-Spot Density (DPC): a conceptual framework addressing structural deficits in the production of accreditable digital evidence.

ARU-HCE and related technical documentation describing persistence, recovery, state representation, provenance, and interoperability.

Independent academic antecedent: research on social representations of the public university, published in Revista Virtual Universidad Católica del Norte (2016), based on 349 participants.

AI-related conceptual/methodological work concerning verifiability and legal responsibility in educational AI.

WHAT PRIOR WORK SUPPORTS

Prior work supports the existence of a developed conceptual and technical basis for representing states, evidence, transformations, persistence, recovery, and trajectories.

It supports feasibility of translating conceptual questions into explicit variables, records, procedures, and instrumentation interfaces.

WHAT PRIOR WORK DOES NOT ESTABLISH

It does not establish predictive external validity of MENS-SCCA.

It does not establish superiority over existing benchmark methodologies.

It does not establish generalization across frontier models, tasks, domains, or evaluators.

It does not establish that the proposed trajectory metrics are valid universal metrics.

WHAT THE FELLOWSHIP MUST TEST

1. Incremental information beyond final-outcome scoring.
2. Metric stability, sensitivity, and non-redundancy.
3. Replication across tasks, models, and conditions.
4. Reproducible characterization of failures and recovery.
5. Agreement or interpretable disagreement between experts and model judges.
6. Resistance to contamination and leakage.
7. Reproducibility in an authorized external evaluation environment.

CURRICULAR FORMULATION

The principal investigator has developed MENS-SCCA as experimental research infrastructure for representing and tracing states, transformations, evidence, errors, recovery, and trajectories. This work is supported by architectural and technical documentation, intellectual-property records, and independent academic research experience. The APEX proposal does not present these antecedents as final empirical validation; it uses them as the starting point for an external, reproducible, and falsifiable test.

PUBLIC REPOSITORY AND DISCLOSURE

Public repository: <https://mensscca.com/repositorio/compendioacademicomensscca>

The repository should be treated as a source for inspection of authorized documentation, not as evidence of peer review, external audit, or independent scientific validation.

CONCLUSION

The value of prior work for the fellowship is that it provides a sufficiently developed conceptual, methodological, and technical starting point for an external test. The fellowship's scientific contribution is to move the evidence from documented architecture and development toward experimentally tested hypotheses, while preserving clear separation between authorship, intellectual property, engineering development, and scientific evidence.