

# Transcendental Identity

An Experiment in Cyberspace

Co-Authored By:

Aaron A. Alexander and Scott M. Akers

## 1 ABSTRACT

---

What is the meaning of identity in the information age? Our lives are defined by a set of fixed characteristics, documents, contracts, private keys, etc. All of which are artifacts of our existence. The enormously complex architecture that houses these characteristics has expressed itself across all realms of science, theology, sociology, and has been extended into our lives through the use of the internet. While there is a rich trove of information available to us, it has lost relevance to the point of being constant static on our lives, disrupting our thoughts, actions, decisions and wellbeing as individuals and as an organic whole. The internet is a sufficiently mature means of communicating this subject matter into our lives, however, we are ill-equipped to process, categorize, parse, and infer meaning. As organisms, we have reached a phase of information overload, where we are unable to make sense of the information presented to us. Our purpose is to encapsulate and define the core tenants of information in the hope that we can make more informed decisions and possess a healthy human and digital identity during global transition into the cybernetic age.

## 2 OVERVIEW

---

The matter of this experiment is to simplify the architectures that comprise “the internet” and gain an understanding of the tools, content relations, discovery, and expression of data in a familiar way. Furthering this explication, we seek to provide a clear framework and logical proof mechanism that can be applied across all of the value-layers that are inherent in the expression of hypermedia, and how we can better sort, categorize, and discover new concepts that exist in the hypermedia space.

## 3 DESIGN ASSUMPTIONS

---

To best explicate the idea of transcendental identity, we pull on resources from all fields of science, theology, and philosophy to encapsulate the full nature of existence. By taking a firm viewpoint on the idea that we have ‘identity’, we are able to reduce the informational realities that impact our lives. Identity Science is the effort to reduce the complexity of information that we are forced to deal with. Our use of the internet, our dependence on the information exchange ‘guaranteed’ by existing systems, and the existential risk we are faced with through the loss of such a system, makes it imperative that we have a common language and framework by which to view the exchange of value. This exchange must maintain transaction fidelity, security, and instantiate identity to the transactions that take place within the system.

The experiment is best expressed as a thought experiment from the standpoint of a  $n$ -dimensional being asking an  $n-1$  dimensional being a question about that person's identity in their dimensional plane.

## 4 EXPECTED RESULTS

---

We expect the  $n-1$  dimensional being to be able to point at artifacts in their dimensional environment that proves a reasonable context to their existence. These artifacts, when taken as a whole data-point, from the  $n$ -dimensional being perspective, would provide a reasonable context to prove that the  $n-1$  being does indeed exist in the  $n$ -dimensional plane.

## 5 COUNTER ARGUMENTS

---

Contrary to this notion, arguments can be made that the  $n$ -dimensional being takes a certain form and that one particular form would be molded to provoke thought in the most effective way possible given the existing social and technological context. As a higher-order being, it would utilize lower-order dimensional characteristics to deliver the message.

## 6 LIMITATIONS

---

In the context of science, we must consider advancements that have been made toward the micro-content of particle physics, and the macro-content of universal astrophysics. It is argued that these two fields of study are maximally inclusive based on the unitary tools that are being used to discover our place in space and in reality. It is strongly supported that there are linkages between the two. Recent advancements in gravitational string theory provide a lens that allows us to measure the most fundamental linkages between matter at an astrophysical level, and provide insight into gravity's instantiation in particle physics.

In the context of Theology, we must consider the impact that  $n+1$  dimensional beings would have in a social, political, and physical context. There is tacit recognition that  $n+1$  dimensional beings are capable of operating within the physical plane.

In the context of philosophy, we must consider the natural limitations of the human mind. While it is considered to be the most powerful information processing machine known, there are limitations to the contextual data that can be collected and parsed. We are driven as organisms to use artificial constructs or philosophical images to "make sense" of the information that is presented to us. Some constructs will be measurably advantageous to our survival while other images, indicated by cybernetic patterns, may uncover unpredictable circumstances that render disadvantage to the system.

## 7 DEFINITION OF TERMS

---

Identity – A singular immeasurable object in a dimensional plane that must use other objects to provide context to its existence. This is the negative space that has no characteristics, all instantiation comes from providing context to prove existence – not existence itself.

Instantiation – the creation

Event – an instant in time that brings n-disparate non-reducible datum into union, creating an interference.

Time – a warping or translation of space between two datum.

Action – a state that maximizes or minimizes the resolution of unknown processes.

Agent – a structure whose integrity stands to gain or lose from the resolution of known processes.

Process – the total unitary set of agent-action relations within a given event space.

Datum – a singular unit of information.

Albert – an  $n+1$  dimensional being.

Margaret – an  $n$ -dimensional being.

## 8 METHODOLOGIES

---

With great help from the planet earth, humans, technologies and Gods that have gotten us so far. Thank you to all the families out there. Real and Digital.

Hypotheses:

All the information in the universe is composed of at least 1 Datum.

Identity is the sum of events at a given space/time that creates an interference pattern

## 9 EXPERIMENT #1 – DEFINING IDENTITY AS DEGREES OF VALUE

---

<<Begin Event>>

Albert: "Hello Margaret."

Margaret: "Hello Albert."

A: "Margaret, what is your identity?"

M: "What is my Identity? My identity is my physical body, my birth certificate, my social security card, my bank account, my email, my social media profile, my phone apps, and the unique data contained there. My house is represented by my deed. My car is represented by Auto Title. My diet is..., my gender is...,

<<End Event>>

<<Explanation of Event>> (Object) An object is comprised of at least 1 Datum of information. Margaret uses her name to most closely describe her identity. Supporting the identity claim, she uses contextual data to more clearly define other datum that describes her identity. Those datum can be qualified as person or property. Real, personal, intellectual, or fictitious.

The Event encapsulates all that was said between Albert and Margaret. Albert and Margaret are interference patterns that instantiate at the event  $T=0$ . All prior events are insignificant. Because Albert is asking a question "what is your identity?", Margaret instantiates a unique pattern of data that can be linked to the identity of Margaret.

<<Begin Event>>

A: "Those are all forms of datum. You are made of those datum. I would like to ask, Where is your identity?"

M: "Where is my Identity? I suppose it is housed somewhere in those systems."

A: "Do you have control of your identity?"

M: "Yes. But I have an agent system that manages my identity"

A: "Do you feel that the agent is doing its best to protect your identity?"

M: "I believe they do provide protection."

A: "Do they provide absolute, uncensored access to your identity? Is that system always available? Is that system accessible, given your understanding of technology?"

M: "I believe it does."

A: "Does that system make you feel safe about where your identity is?"

M: "Yes."

A: "You have a very secure sense of identity. This is enough evidence to prove you exist."

<<End Event>>

<<Explanation>> (Assertion) An assertion is an object that supposes a set of principles or transactions that must take place to be considered datum. An assertion is one form of datum. Keep in mind, the content or "metadata" associated with the assertion does not need to be included as information. Meta-data would be considered n-1 information in relation to the 'Margaret' identity. Albert

<<Begin Event>>

M: "... thank you?"

A: "Does your identity provide the things you need to live your life in the way you would like?"

M: "I believe my identity provides some things. Other things, I must get for myself."

A: "What are those things?"

M: "Water, Food, Shelter, Access to my identity. My creative outlets, my sense of adventure, and my purpose in life are things I must find for myself."

A: "Do the agents that manage your identity make it easier to pursue the thing that makes you happiest?"

M: "I do."

A: "You have a healthy identity"

M: "That is good to know."

<<End Event>>

<<Explanation>> (Value) – value itself can be described as an object or assertion.

1 Datum of value exists in 1 dimension. The intersection of 2 values represents a concept. From the 1<sup>st</sup> dimension, the concept is in a second dimension of reality but maintains an informational mass of 1 datum. The intersection of a value and a concept represents a matter; matter is a 3<sup>rd</sup> dimensional datum.

## 10 EXPERIMENT #2: DEFINING AN IDENTITY WITH PURPOSE

---

For this experiment, assume Albert is an n+1 capable machine with 5 basic buttons and 5 sub-selections. he is at a fixed location.

<<Begin Event>>

A: "Hello Margaret"

M: "Hello Albert"

A: "Where would you like to go?"

M: "I don't know. Can you show me where I am?"

A: "You are here [Map] – on 1234 main street. From here, you can do 5 things.  
[Facilities][food][shelter][explore][meet]"

M: "Thank you, Albert"

<<End Event>>

<<Event Explanation>> Unconstrained purpose is simply defined as an identity interacting at a validator node. Supporting the data provided to the identity, information can be preselected based on the identity's preferences, data peers, or other context specific information.

## 11 EXPERIMENT #3 – MARGARET THE PHOTON

---

This experiment seeks to understand what a photon would say to an observer that could travel at the speed of light, and asking what the identity is, and the contextual information that asserts datalogical mass.

<<Begin Event>>

A: "Hello Margaret"

M: "Hello Albert"

A: "What is your identity?"

M: "I am an interference pattern of energy" (matter)

A: "Where is your identity?"

M: "At the speed of light, right now"

<<End Event>>

<<Event Explanation>>

This experiment seeks to encapsulate the data inherent in a photon of light. Traditional measurement models in the existing scientific sphere have deduced that a photon acts as a wave and a particle. Existing measurement models, while able to paint a clear contextual picture allowing deep understanding of all of the components, cannot encapsulate the identity in a single measurement. Our hope is that information science can provide a lens of nuance to the explication and unification of datalogical models at the subatomic level.

## 12 MEASUREMENTS

---

Identity  $\overset{\cdot}{\iota}$ ,  $\overset{\cdot}{\imath}$ ,  $\overset{\cdot}{\tilde{\iota}}$  - The object that instantiates an event; Identity can come from any of n dimensions, dimensionality is notated through alephs on top of the greek character iota .

Event  $\overset{\cdot}{\epsilon}$ ,  $\overset{\cdot}{\varepsilon}$  - the space in which a value occurs; Events can occur at any dimension. Dimensionality is notated through alephs over the greek letter epsilon

Value  $\overset{\cdot}{\vee}$  - The intersection of 2 values; Value occurs at the intersection of two types of value These are typically objects or assertions, or a combination thereof.

Object -  $\overset{\cdot}{\omega}$ ,  $\overset{\cdot}{\omicron}$ ,  $\overset{\cdot}{\tilde{\omega}}$  - a type of value, dimensionality is denoted by alephs over the greek letter omega.

Assertion  $\overset{\cdot}{\alpha}$  - a type of value, denoted with an empty circle below the greek letter alpha.

Datum  $\overset{\cdot}{d}$  - datalogical mass; all information contains 1 datum.

These measurements seek to deconstruct the information presented as a complex sequence of disparate data. In different degrees of dimensionality, there are multiple datum that contribute to identifying a particular concept.

## 13 CONCLUSION FROM MEASUREMENTS

---

These measurements provide basic tools to quantify data in simplified way. Key to this simplification is recognition of the notion that an identity itself is null, and the identity must point to contextual information to prove its existence.

We can reductively show through this lens that all information is the interference of datum at a particular point in space, and that time is simply the warping of space between those interference patterns.

Maximalizing this notion and by refactoring all available datasets, we posit that Identity is the sum of all events at time = 0.

## 14 APPENDIX

---