

Building Internet Of TRust on Web3 with Googlenium.com



Objective

As the role of electronically published information is taking center stage in the decision-making process, it becomes increasingly important to provide a technology capable of verifying and confirming news and stories published by media sources on the web.

The following line of reasoning is assumed:

- A true story is a story based on facts
- Facts are confirmed events
- Events are actions that have happened in certain places at certain times
- Actual events are events confirmed by trusted witnesses.

The said technology will be able to provide an immutable record of event confirmed by a number of witnesses with dynamically evaluated level of trustfulness.



Idea

In this perspective, one of the most distinctive blockchain abilities which is to deliver unaltered and always available records, could be utilized to evaluate trustworthiness of electronically published stories by employing smart contracts designed to confirm facts and events of the story.



Disposition

To lay out an idea let's assume following:

- every real story is based on real events.
- every real event must be observed and uniquely identified by real witnesses.
- every real witness (person or entity) can be uniquely identified.
- event and witness may register a unique smart contract on the blockchain.
- witnesses can be rewarded for confirming a given event.
- claim of witnessing an event can be programmatically evaluated.
- algorithms to calculate event's "reality" level and witness "credibility" are available.
- based on events credibility scores, it is possible to evaluate how "true" the whole story is.

To be evaluated, an event will be recorded on the blockchain as a smart contract containing information about time, place, subject and short description (full description may be available outside of the blockchain and from different sources).

In addition to event identifications, an Event Smart Contract (ESC) also contains witness credentials associated with the event.

TrustWOrthiness Coefficient (TWOC) can be calculated as a median of all witnesses' TWOC.

By confirming an event and providing PProof of Event (PREV), witness may be awarded by raising its own TWOC as well as gaining some blockchain tokens.

The tokens supplier could be a storyteller who is willing to include a reference to the Event SC into the story.

PREV can be provided by a trusted authority that is able to confirm that the ID registered with witness SC has a proven relationship to the event.

The story itself may gain the blockchain tokens donations from readers and referrers. The acquired tokens can be used not only for interacting with ESC but also for various other services i.e., hosting, advanced design features etc.

Implementation

About **Googlenium.com**

Googlenium.com is an online service dedicated to creating and managing personal web presence sites - places where people can record, organize, and keep memorable events and stories of their lives. They may choose to keep them private or share with selected family members and friends as well as make them available to the rest of the world.

The already available Googlenium events management mechanism has been adopted for utilizing Ethereum blockchain and smart contracts. The later will be used to register events and create incentives for registered members to gain and use them.

To promote the idea of registering events on blockchain, the concepts of "event ownership" and "event stake" are being suggested.

Specially minted EON tokens will be used in Events Smart Contracts to raise event stakes and bid for the event ownership.

We are assuming that there is an established relationship between an event and a person registering it and that the value that person is setting as a stake is serving as a proof of event.

Anyone with the sufficient amount of Ether can register an ESC. After submitting event contract to the blockchain, the event registrar may return to the event and set a stake in any amount of EON tokens as a proof of event.

The event validation mechanism and TWOC calculation are not a part of this example and may be discussed later.

There might be other people who have witnessed or have direct knowledge of the event and who would like to participate in raising the event stake. They may do this in two ways - by sending tokens in amount less than current event stake and become witnesses or they may overbid current event owner by sending more than is currently at stake and become event owners.

The incentive for all participants is that difference between current stake and new ownership stake will be divided between previous owner and witnesses.

This is not the only incentive that can be used in ESC - i.e. authors who are referring to the event in their publications may be willing to prove them by referencing correspondent ESC and paying some tokens that also may be divided between ESC participants and raising event's stake.

Building a sample case

We will use Ethereum single node private net blockchain and Netherium integration libraries to build interface between Events created by Googlenium users and Event Smart Contracts (ESC) registered on this blockchain implementation.

ESC will operate with the following notions and values:

S_i - *Initial Stake* = Initial stake set by the Event Registrar - person who defined event on Googlenium and registered ESC on the blockchain.

Registrar's (first witness W₁) Ethereum address and Event description URL as well as email address are saved within the ESC.

S_o - *Ownership Stake* = $S_i + S\Delta$

Δ - *Stake differential (delta)* ≥ 1 EON

S_{wn} - *Witness Stake* = Witness n balance.

S_{esc} - *Event Stake* = ESC balance = $\sum_{i=1}^n S_{wi}$

B - Bid amount - amount of crypto being added to the witness stake S_{wi} .

There are two possible scenarios of how the bid amount can be distributed:

1). If witness new balance is more than S_o ($S_{wi} + B > S_o$), witness becomes new Event owner and Ownership Stake becomes Initial Stake $S_n = S_o$.

Δ — difference between ownership stake S_o and initial stake S_i is being distributed between event witnesses in following proportions:

- Previous owner receives 50% of the sum added to the previous ownership stake $S_{wn-1} += \Delta / 2$
- New owner receives 25% of Δ amount $S_o += B + \Delta / 4$
- The remaining quarter of Δ is distributed between all witnesses proportionally to their stakes

$$S_{wi} += ((100 * S_{wi}) / S_{esc}) * (\Delta / 4) / 100$$

2). Witness' new balance is less or the same as ownership stake $S_{wi} + A_b \leq S_o$

In this case witness' stake will be increased by the bid amount. ESC balance will be $S_{wi} += A_b$

The benefit for the witness would be that next time ownership is transferred, reward will be calculated proportionally to the new witness stake.

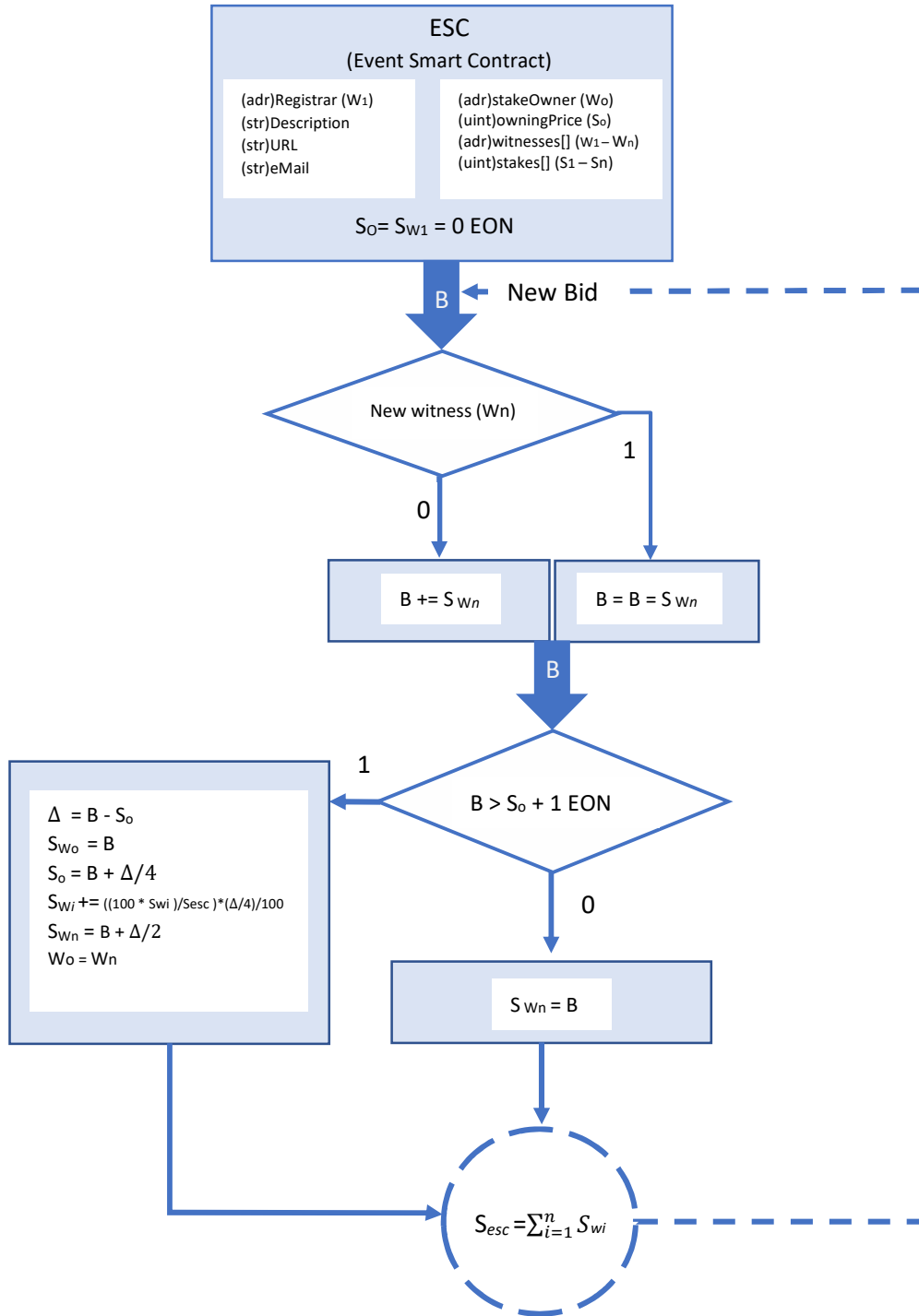
Some used and suggested terminology:

SC - Smart Contract

ESC - Event SC registered on blockchain representing combination of time, place, subject and description identifying unique witnessed occurrence

PREV - Proof of Event

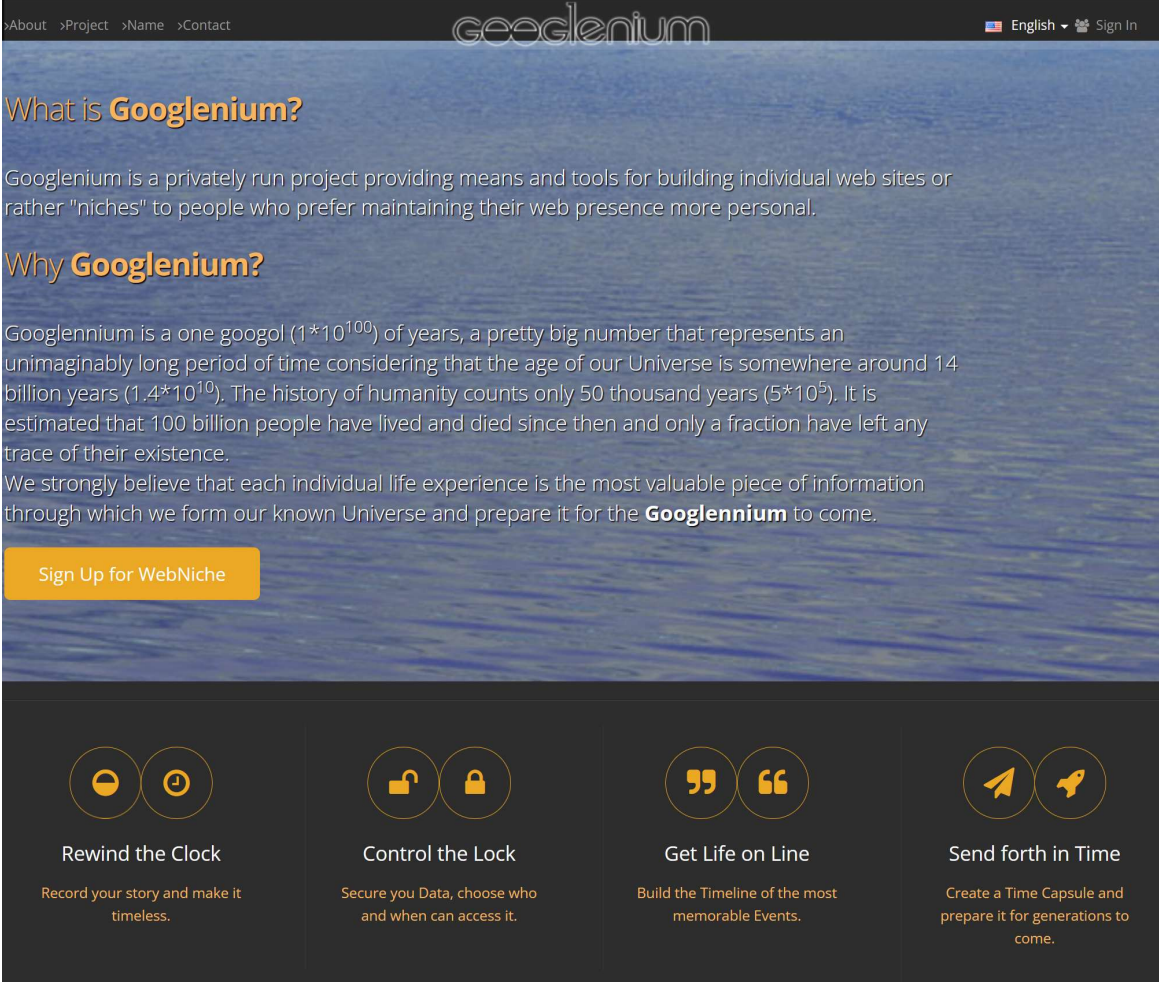
TWOC - TrustWorthy Coefficient. A calculated number based on the number of confirmed witnessed events or objects.



Example case

Let's start with registering a new user and creating a Googlenium 'niche' where we can later publish a story and deploy a smart contract.

Navigate to <https://googlenium.com> site and scroll down to "Sign Up for WebNiche":



The screenshot shows the Googlenium website with a dark blue background. At the top, there is a navigation bar with links for 'About', 'Project', 'Name', and 'Contact'. The Googlenium logo is centered at the top. Below the logo, there is a section titled 'What is Googlenium?' followed by a paragraph explaining the project. Another section titled 'Why Googlenium?' follows, with a paragraph explaining the concept of a googol and the value of individual life experiences. A prominent orange button labeled 'Sign Up for WebNiche' is located below the text. At the bottom of the page, there are four service options, each with an icon and a brief description:

- Rewind the Clock**: Record your story and make it timeless.
- Control the Lock**: Secure your Data, choose who and when can access it.
- Get Life on Line**: Build the Timeline of the most memorable Events.
- Send forth in Time**: Create a Time Capsule and prepare it for generations to come.

Click the button and select the type of site you will be creating:

< Back Home English Sign In

geoglenium

Select appropriate registration type to receive

- ✓ Web site with the set of predefined pages.
- ✓ Access to Control Panel for your web site management.
- ✓ Selection of personalized templates to apply to your web pages.
- ✓ Selection of prebuilt widgets to attach to templates and pages.
- ✓ Picture, Media and Document Libraries to use with your content.

[Next >](#)

I would like to create a web niche for


Myself and have it opened for the public.
I will manage my content and audience.

Myself and keep it private.
I will provide instruction how to manage my content and audience.

Another person who will review and approve content publication.

Type the captcha code

Please read and confirm that you agree with our policies by entering a code below:



[Get Audio Code](#)

Type the code from the image

[Confirm](#)

No warranties

Sign Up for Googlenium Web niche

<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value=""/>

Enter new user data and sign up:

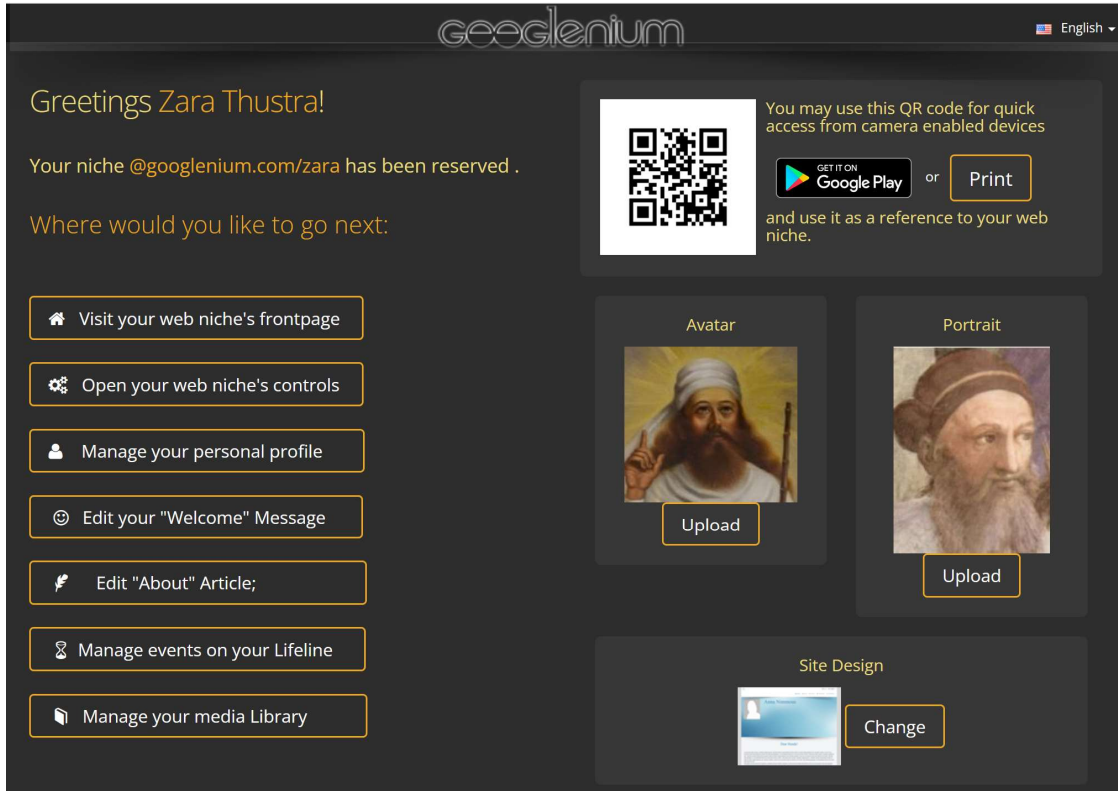
Sign Up for Googlenium Web niche

<input type="text" value="zara"/>	<input type="text" value="zara@lennium.com"/>
<input type="password" value="....."/>	<input type="password" value="....."/>
<input type="text" value="Zara"/>	<input type="text" value=""/>
<input type="text" value="Thustra"/>	<input type="text" value="3/3/1882"/>

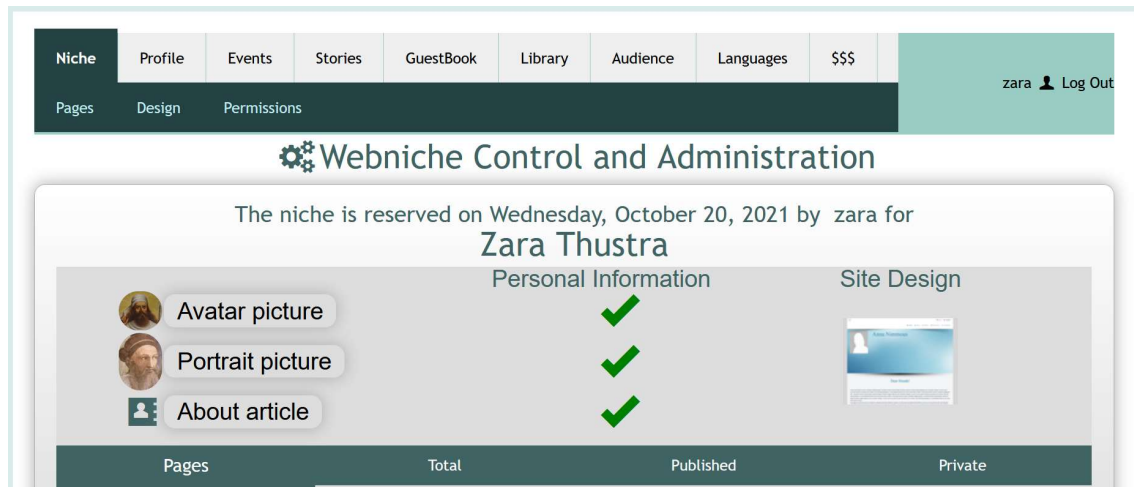
[Sign Up](#)



Wait a bit:
and new site will be ready.



You may use available controls to upload pictures, manage site design and add events to your timeline.




The niche and site are now ready for adding new stories and events.

Sign In

Home About Lifeline StoryBook GuestBook

Zara Thustra



Zoroaster (/ˈzɒrəæstər/, UK also /ˈzɒrəˈæstər/; Greek: Ζωροάστρης, Zōroastrēs), also known as Zarathustra (/ˌzæərəˈθuːstrə/, UK also /zɑːrɑː-/; Avestan: **Zaraθuštra**), **Zarathushtra** Spitama or Ashu Zarathushtra (Modern Persian: زرتشت, Zartosht), was an ancient Iranian prophet (spiritual leader) who founded what is now known as Zoroastrianism. His teachings challenged the existing traditions of the Indo-Iranian religion and inaugurated a movement that eventually became the dominant religion in Ancient Persia. He was a native speaker of Old Avestan and lived in the eastern part of the Iranian Plateau, but his exact birthplace is uncertain.

but before adding new Event and registering it on blockchain, we will create blockchain account:

Niche Profile Events Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Accounts My Contracts Smart Contracts Smarket Stakes

My Accounts

ACCOUNT	DATE	AMOUNT	COIN		
Googlenium Credit	10/20/2021	10.00000	EON	DETAILS	TRANSFER

New Account

Niche Profile Events Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Accounts My Contracts Smart Contracts Smarket Stakes

New Accounts

Create New Ethereum Account

Add Existing Ethereum Account

Niche Profile Events Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Accounts My Contracts Smart Contracts Smarket Stakes

Ethereum Account

Security phrase
Account #

Niche Profile Events Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Accounts My Contracts Smart Contracts Smarket Stakes

Account:

Coin: Amount:

Address:

Date opened:

Phrase:

Keyfile: UTC--2021-10-20T23-45-52.0085348Z--5281a135b32c1fDEa52cB7699baC895fed36fD08

For our future blockchain operations we certainly will need some Ether, so we got some donated:

My Accounts

ACCOUNT	DATE	AMOUNT	COIN		
Googlenium Credit	10/20/2021	10.00000	EON	DETAILS	TRANSFER
Eth1-2021-10-20 11:45:53	10/20/2021	80.00000	ETH	DETAILS	TRANSFER

To add a new event, open “Lifetime Events” and complete the available fields:

Niche Profile **Events** Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Lifetime Calendar Actions

Events Published

31 **Lifetimeline Events** 1 1

Niche Profile **Events** Stories GuestBook Library Audience Languages \$\$\$ zara Log Out

Lifetime Calendar Actions

LifeTime Events Control

[+ Add New Lifetime Event](#)

DATE		TITLE		
03/03/1883		Thus Spoke Zarathustra	EDIT	DELETE

Niche Profile **Events** Stories GuestBook Library Audience Languages \$\$\$ zara Log Out


Lifetime Calendar Actions

LifeTime Events Control

Title:

Date:

Summary:

Picture: 

Thus Spoke Zarathustra: A Book for All and None (German: *Also sprach Zarathustra*; *Ein Buch für Alle und Keinen*) also translated as **Thus Spake Zarathustra**, is a work of philosophical fiction written by German philosopher Friedrich Nietzsche between 1883 and 1885. The protagonist is nominally the historical Zarathustra, but, besides a handful of sentences, Nietzsche is not particularly concerned with any resemblance. Much of the book purports to be what Zarathustra said, and it repeats the refrain, "Thus spoke Zarathustra".

When all details are completed and saved, a newly created event can be registered on the blockchain:

LEIPZIG
Verlag von E.W. Franz

consensus.
Zarathustra's themes and merits are continually disputed. It has nonetheless been hugely influential in various facets of culture.

[From Wikipedia, the free encyclopedia]

Edit Event Details

Contract:

Register Event Smart Contract

Update

< Events

Event: Thus Spoke Zarathustra

Action: Register Event v.1

Deploy from Account: Eth1-2021-10-20 11:45:53 @ 0x5281a135b32c1fdea52cb7699bac895fed36fd08 \$ 80.00000 ETH

Maximum Gas: 100000000

Event_Description: Thus Spoke Zarathustra

EVENT_URL: https://googlenium.com/sites/zara/event?evid=f069accb-4e01-6921-bf7b-ff00007a1511

Registrar_email: zara@lennium.com

Deploy Contract

After deploying a Contract on the blockchain we need to save it in order for the ESC to be linked to the Event record:

Contract address: 0xe9c7f7456a105a5124dcf1a1ad441862220e7295

Title: zara>Thus Spoke Zarathustra@10/21/2021 12:01:05 AM

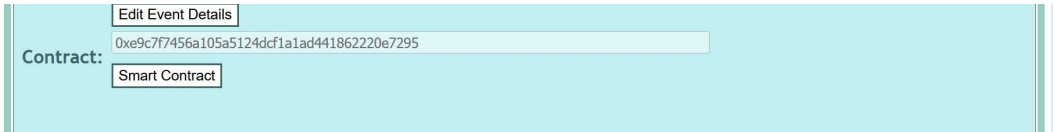
Description: Event#1 on Zara's Timeline

Event_Description: Thus Spoke Zarathustra

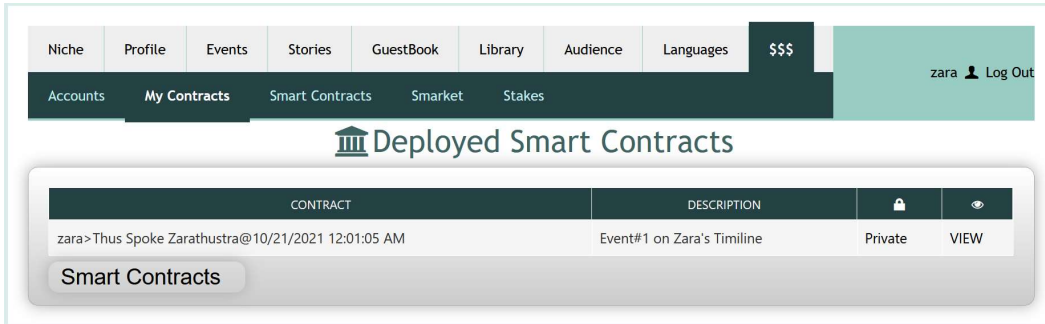
EVENT_URL: https://googlenium.com/sites/zara/event?evid=f069accb-4e01-6921-bf7b-ff00007a1511

Registrar_email: zara@lennium.com

Save Contract

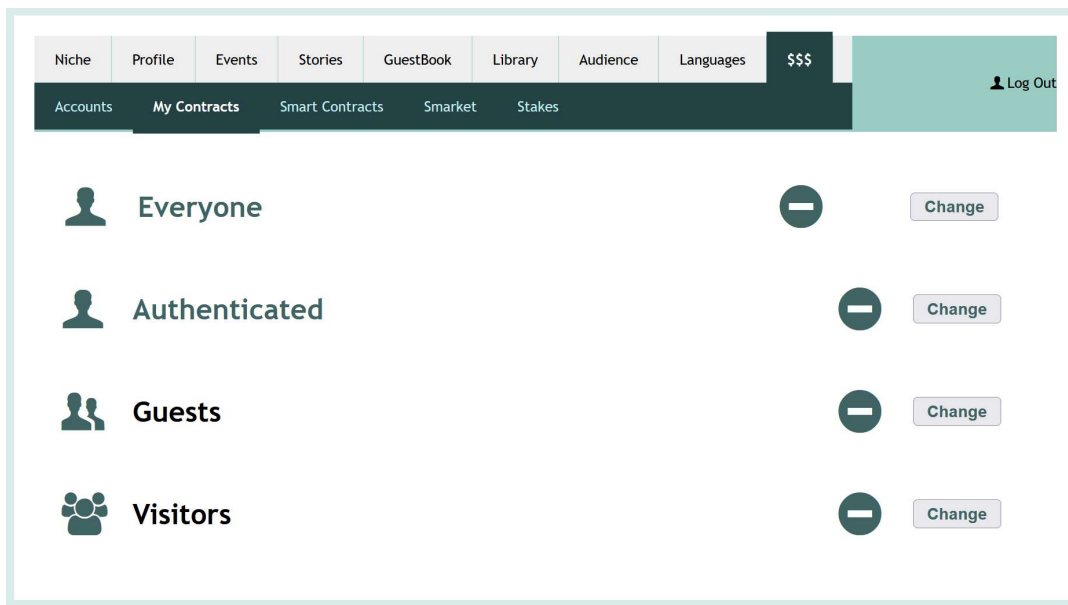


Now we have a new Contract in 'My Contracts' view:

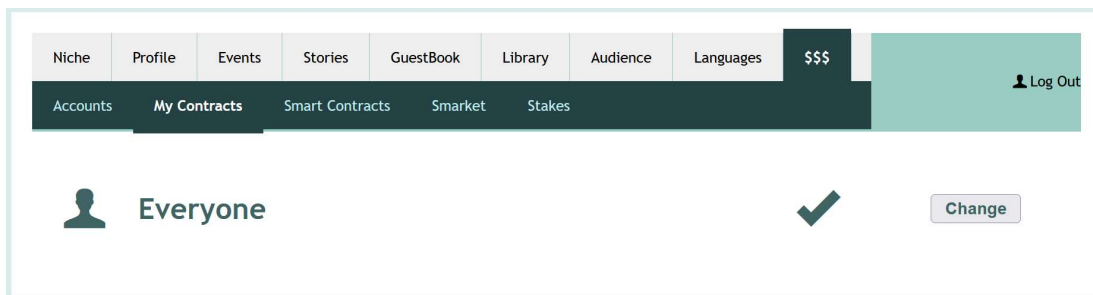


but it still has 'Private' only type of access.

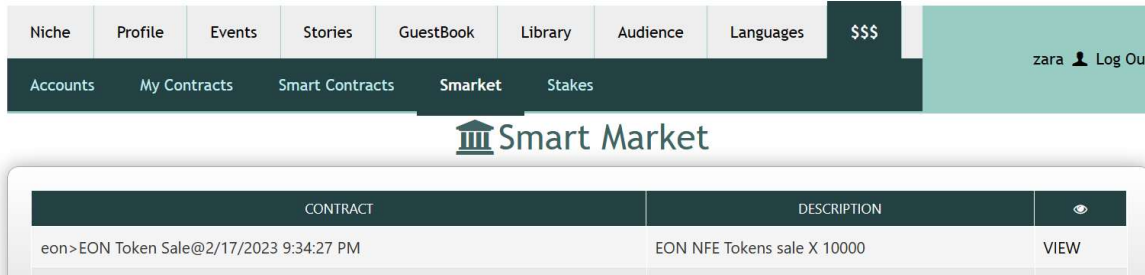
To make it visible to others we need to change its access level (click on 'Private'):



And make it visible for everyone:



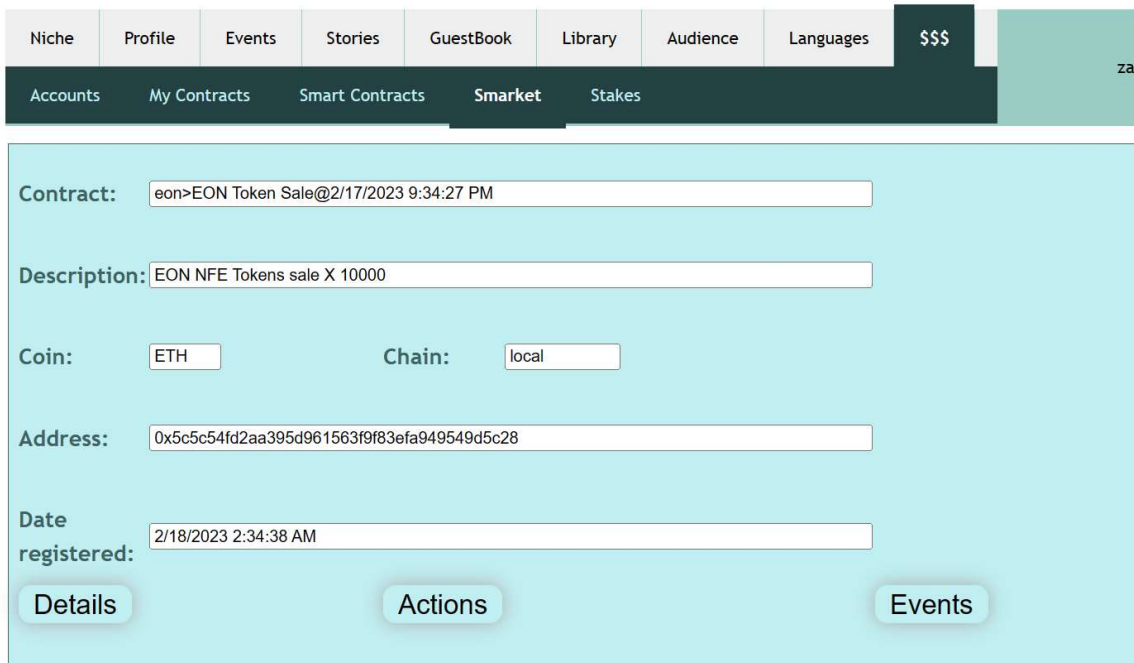
Next step would be raising new event stake by backing it with some EON tokens but we would need to get some tokens first. To do so we will go to the Smart Market “SMarket” tab and “View” a token sale smart contract:



The screenshot shows the top navigation bar with tabs for Niche, Profile, Events, Stories, GuestBook, Library, Audience, Languages, and \$\$\$ (selected). Below the navigation bar, there are sub-tabs for Accounts, My Contracts, Smart Contracts, SMarket (selected), and Stakes. The main content area displays a table with the following data:

CONTRACT	DESCRIPTION	
eon>EON Token Sale@2/17/2023 9:34:27 PM	EON NFE Tokens sale X 10000	VIEW

While in the contract, we select “Actions”



The screenshot shows the details of the smart contract. The navigation bar is the same as in the previous screenshot. The main content area is light blue and contains the following fields:

- Contract:** eon>EON Token Sale@2/17/2023 9:34:27 PM
- Description:** EON NFE Tokens sale X 10000
- Coin:** ETH
- Chain:** local
- Address:** 0x5c5c54fd2aa395d961563f9f83efa949549d5c28
- Date registered:** 2/18/2023 2:34:38 AM

At the bottom of the form, there are three buttons: Details, Actions (highlighted), and Events.

And exchange 1000000 Wei for 100 EON tokens – the rate set in the token sale contract.

Contract: EON Token Sale

Description:

Contract address: 0x5c5c54fd2aa395d961563f9f83efa949549d5c28

Use Address:

Gas (wei):

buyTokens

(uint256)_NumberOfTokens

Amount (Wei)

(bool)success :

buyTokens

The amount will be available in the account after “Refreshing” account screen:

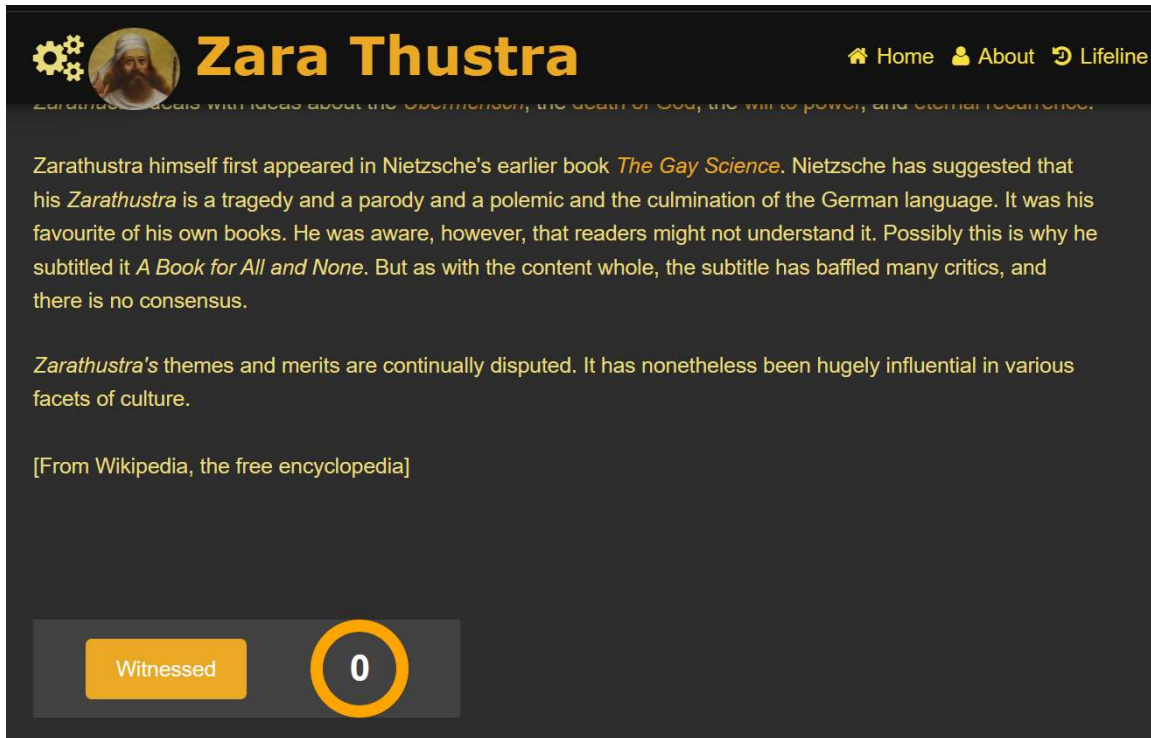
< Accounts

Account:

Coin: **Amount:** **REFRESH**

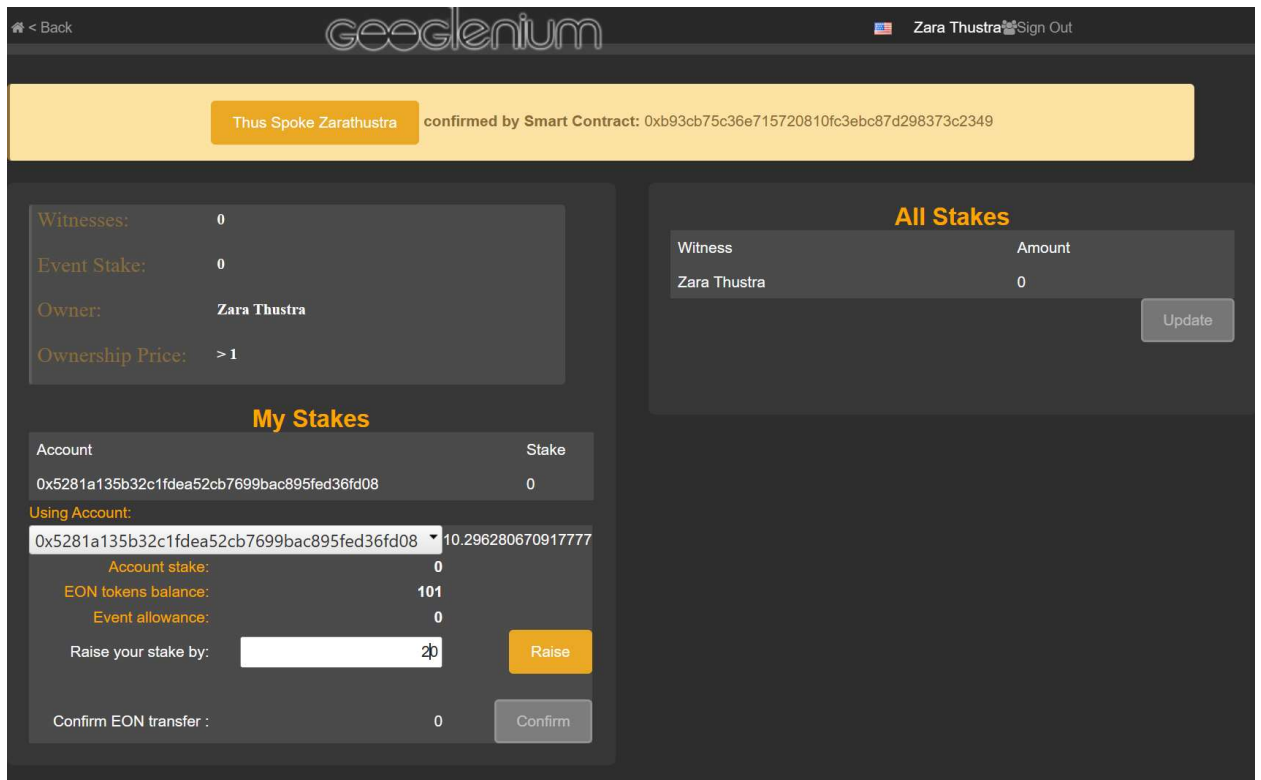
Address:

Now we can return back to the Event to raise the stake:



Operation is done in three steps:

1. Securing amount from the Token contract (setting Allowance amount for the Event) – ‘Raise’ button:



2. Sending secured amount to the Event Contract (‘Confirm’ button):

Back Zara Thustra Sign Out

geoglenium

Thus Spoke Zarathustra confirmed by Smart Contract: 0xb93cb75c36e715720810fc3ebc87d298373c2349

Witnesses: 0

Event Stake: 0

Owner: Zara Thustra

Ownership Price: > 1

My Stakes

Account	Stake
0x5281a135b32c1fdea52cb7699bac895fed36fd08	0

Using Account:

0x5281a135b32c1fdea52cb7699bac895fed36fd08 10.296280670917777

Account stake: 0

EON tokens balance: 101

Event allowance: 20

Raise your stake by: Raise

Confirm EON transfer : 20 Confirm

All Stakes

Witness	Amount
Zara Thustra	0

Update

3. And updating Contract information in Googlenium database using 'Update' button:

Back Zara Thustra Sign Out

geoglenium

Thus Spoke Zarathustra confirmed by Smart Contract: 0xb93cb75c36e715720810fc3ebc87d298373c2349

Witnesses: 1

Event Stake: 20

Owner: Zara Thustra

Ownership Price: > 21

My Stakes

Account	Stake
0x5281a135b32c1fdea52cb7699bac895fed36fd08	20

Using Account:

0x5281a135b32c1fdea52cb7699bac895fed36fd08 10.296280670917507

Account stake: 20

EON tokens balance: 81

Event allowance: 0

Raise your stake by: Raise

Confirm EON transfer : 0 Confirm

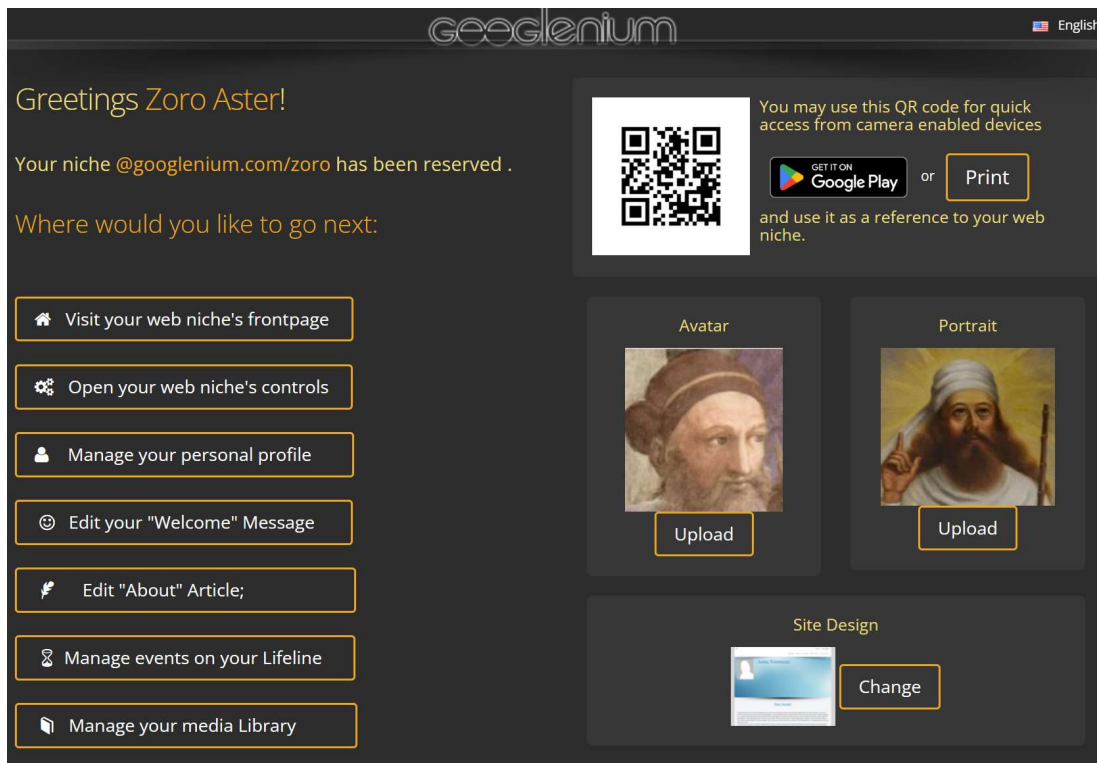
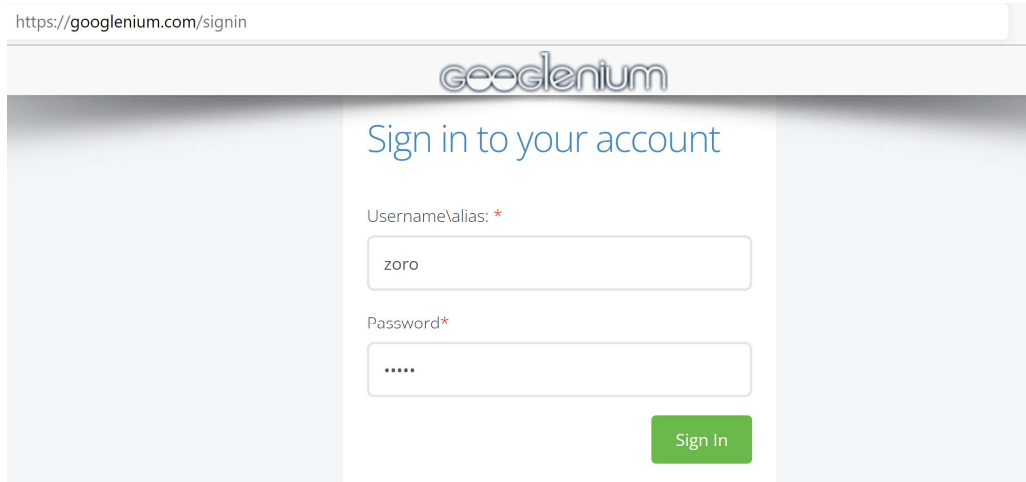
All Stakes

Witness	Amount
Zara Thustra	20

Update


Other registered users, including Zara Thustra's another reincarnation – Zoro Aster, can also 'witness' the Event and raise their stakes and even take Event contract 'ownership' by staking amount higher than 'Ownership Price'.

Sign in



Click on GOOGLINIUM banner on top of the page and search for people:

Greetings Zoro Aster!



Welcome to **Googlenium** - an archipelago of private Islands in the vast sea of the Internet .

Looking for someone?

[Search for people at Googlenium](#)

Looking for someone?

First Name

Last Name




Email Address


[Search](#)

geoglenium English


Looking for someone?

[Search for people at Googlenium](#)


 Zara Thustra [Open](#)

Home About Lifeline StoryBook GuestBook




Zara Thustra

While on Zara Thustra's home page, go to "Lifeline:

 **Zara Thustra** Home About Lifeline StoryBook GuestBook

L A C All

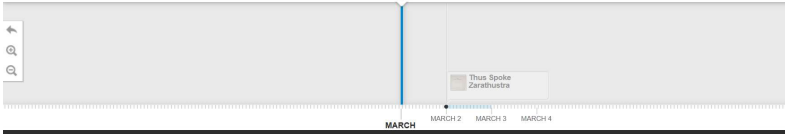


Zara Thustra

LIFE TimeLine

MARCH 2 11:52

Thus Spoke Zarathustra



MARCH MARCH 2 MARCH 3 MARCH 4

And select an event:

The screenshot shows the top navigation bar of the Zara Thustra website with links for Home, About, Lifeline, StoryBook, and GuestBook. Below the navigation bar is a search bar with filters for 'L', 'A', 'C', and 'All'. The main content area features a book cover for 'Also sprach Zarathustra' by Friedrich Nietzsche. To the right of the book cover, the event title 'Thus Spoke Zarathustra' is displayed, along with the dates 'March 2, 1883—March 3, 1883' and the subtitle 'Thus Spoke Zarathustra: A Book for All and None by Friedrich Nietzsche'. Below the event information is a timeline for the month of March, with a blue bar indicating the event's duration from March 2 to March 3. A tooltip with the event title 'Thus Spoke Zarathustra' is visible over the timeline.

Click on the event thumbnail to see details.

The screenshot shows the detailed view of the 'Thus Spoke Zarathustra' event on the Zara Thustra website. The top navigation bar and search bar are identical to the previous screenshot. The main content area features a large book cover for 'Also sprach Zarathustra' by Friedrich Nietzsche. To the right of the book cover, the event title 'Thus Spoke Zarathustra: A Book for All and None' is displayed, along with the subtitle '(German: Also sprach Zarathustra: Ein Buch für Alle und Keinen) also translated as *Thus Spoke Zarathustra*, is a work of philosophical fiction written by German philosopher Friedrich Nietzsche between 1883 and 1885. The protagonist is nominally the historical *Zarathustra*, but, besides a handful of sentences, Nietzsche is not particularly concerned with any resemblance. Much of the book purports to be what Zarathustra said, and it repeats the refrain, "Thus spoke Zarathustra".

The style of *Zarathustra* has facilitated variegated and often incompatible ideas about what Zarathustra says. Zarathustra's "[e]xplanations and claims are almost always analogical and figurative". Though there is no consensus with what Zarathustra *means* when he speaks, there is some consensus with what he speaks *about*. *Zarathustra* deals with ideas about the *Übermensch*, the death of God, the will to power, and eternal recurrence.

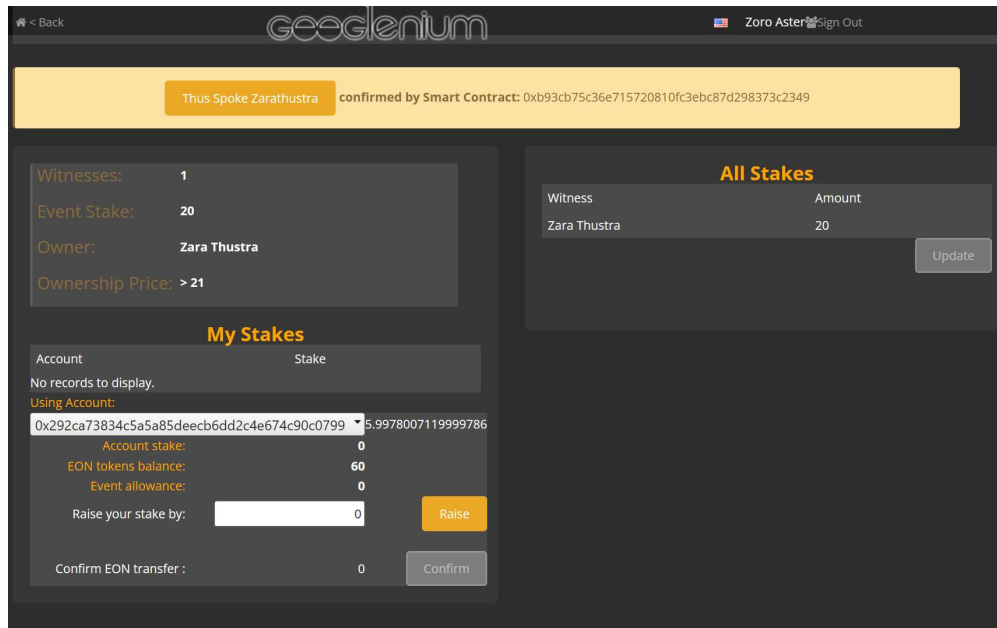
Zarathustra himself first appeared in Nietzsche's earlier book *The Gay Science*. Nietzsche has suggested that his *Zarathustra* is a tragedy and a parody and a polemic and the culmination of the German language. It was his favourite of his own books. He was aware, however, that readers might not understand it. Possibly this is why he subtitled it *A Book for All and None*. But as with the content whole, the subtitle has baffled many critics, and there is no consensus.

Zarathustra's themes and merits are continually disputed. It has nonetheless been hugely influential in various facets of culture.

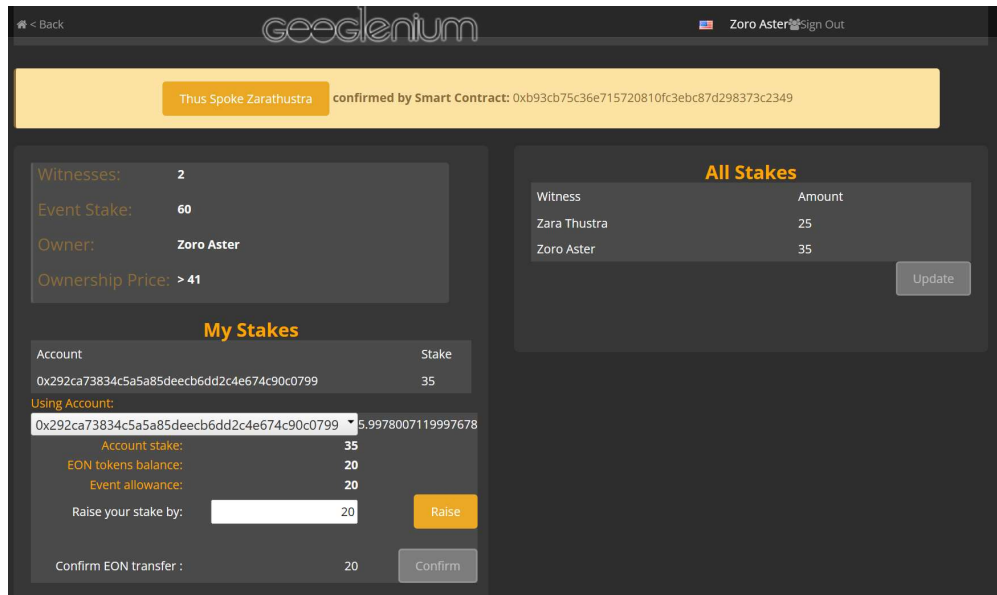
[From Wikipedia, the free encyclopedia]

At the bottom of the page, there is a 'Witnessed' button and a circular counter showing '0'.

Click 'Witnessed' button see current witnesses and their stakes:




You can witness the event by adding any amount of EON tokens or become event owner by staking a sum larger than 'Ownership Price' in three steps operation described earlier.



All Event Contract details as well as Actions and logs are available in Controls '\$\$\$' section when Contract security level allows it.

Event Smart Contracts are located in Smarket (smart market) section:

Smart Market

CONTRACT	DESCRIPTION	
Bara>multiply@4/12/2019 1:06:50 AM	X 3	VIEW
zara>Thus Spoke Zarathustra@10/21/2021 12:01:05 AM	Event#1 on Zara's Timeline	VIEW

[sMarket](#)

Contract:

Description:

Coin: **Chain:**

Address:

Date registered:

[Details](#)
[Actions](#)
[Events](#)

Using “Details”, “Actions” or “Events” buttons we can communicate directly with blockchain.

“Details” will display current values pulling them from the smart contract:

< Contract < sMarkets < MyContracts

Contract: Event

Description: Register Event v.1

Contract address: 0xe9c7f7456a105a5124dcf1a1ad441862220e7295

Owner address: eb6daccb-4e01-6921-bf7b-ff00007a1511

Use Address:

owningPrice

(uint256) : 10000000

Event_Balance

(uint256) : 10000000

stakes

(uint256) : 0

Reference

Description(string) : Thus Spoke Zarathustra
 URL(string) : <https://googlenium.com/sites/zara/event?evid=f069accb-4e01-6921-bf7b-ff00007a1511>
 Email(string) : zara@lennium.com

stakeOwner

(address) : 0x5281a135b32c1fdea52cb7699bac895fed36fd08

“Actions” provide access to the contract functions:

witness

Amount (ETH)

(bool) :

witness

everystake

index(uint32)

witness(address) : 0x5281a135b32c1fdea52cb7699bac895fed36fd08

stake(uint256) : 10000000

everystake

A log of Contract events can be viewed directly on the blockchain in “Events”:

Log					
Witness	Amount	WitnessStake	ContractStake	NewOwner	Time
0x5281a135b32c1fdea52cb7699bac895fed36fd08	10000000	10000000	10000000	True	10/21/2021 12:01:02 AM
0x292ca73834c5a5a85deecb6dd2c4e674c90c0799	25000000	19776813	25000000	True	10/31/2021 2:23:56 AM

Witnessed



Thank you for reading and please feel free to create your own account and play.

If you need some gas for operations on Googlennium local private Ethereum blockchain, please write to try@lennium.com