Fixing the Internet through Timestamps & **Structured Data** @ Friends of Search



Co-funded by the Horizon 2020 programme of the European Union







Sebastiaan van der Lans

Founder & COO WordProof Chairman Trusted Web Foundation Sebastiaan@wordproof.com +31 6 4265 7349





About me





Sebastiaan van der Lans

@delans

15 years experience with WordPress (agency since 2006)

Co-organizer of Dutch WordCamps since 2015

9 years blockchain experience

Started WordProof in 2019

- **Keynote on mainstage #WCEU2019**
- #1 in Europe's Blockchains for Social Good competition 2020 T
- Marieke & Joost on board since 2020

Married to Mirco 🖔 🚞



Aspiring dad 🐕 🎎





In 1991, blockchain was invented for Timestamping.

What is Hashing and what is a Timestamp?



References

- [1] W. Dai, "b-money," http://www.weidai.com/bmoney.txt, 1998.
- [2] H. Massias, X.S. Avila, and J.-J. Quisquater, "Design of a secure timestamping service with minimal trust requirements," In 20th Symposium on Information Theory in the Benelux, May 1999.
- S. Haber, W.S. Stornetta, "How to time-stamp a digital document," In *Journal of Cryptology*, vol 3, no 2, pages 99-111, 1991.



Standards



schema.org





Transparency

Accountability





Through Timestamps we bring open source benefits to 4.88 billion people

- 100 million open source site owners
- As site owners, we have transparency and can hold our software accountable, because it's open source
- Through timestamps, all internet users benefit



In a few years from now, if you don't timestamp your articles on the blockchain, you're going to be considered a fraud.



Brendan Blumer
Co-Founder & CEO Block.One



Matt Mullenweg at CB Insights: "Open-source 'eventually' dominates every sector it enters."

Sebastiaan

December 24, 2019 Leave a comment

I have been a big fan of Matt Mullenweg's work for more than a decade. In this fireside chat at CB Insights, at the end of 2017, he gives some great insight into WordPress (which he co-founded in

3-minute WordProof Pitch at European Commission's 'Blockchains for Social Good'



Word

applic

on 'E

Final

trans

solut

mode

Previous

Browse through previous versions (X)



first timestamp 2/12/2020 at 12:20:02 PM

mo, getting the chance to present the impact of their solutions on social good aspects and t he underlying economic models, and demonstr ated how their solutions work.

https://www.youtube.com/watch?v=8vIDczYQt sgProblem Outline / WordProof's MissionThe in ternet has a deep-rooted issue: trust.

29% of Europeans are suspicious of the intern et, and 86% have fallen for fake news. This cau recent 2/16/2020 at 1:20:19 AM

mo, gettingHere's the chancefull totranscript present of WordProof's pitch, presenting the im pact of theirour solutions on social good aspec ts and the underlying economic models, and d emonstrated how their solutions workmodel.

https://www.youtube.com/watch?v=8vIDczYQt sgProblem Outline / WordProof's MissionThe in ternet has a deep-rooted issue: trust.

29% of Europeans are suspicious of the intern

Explanation



Timestamp check



Raw input



View on Blockchain











835.000.000

Unique page views, serving a WordProof Timestamp. *



5.300.000+

Unique Timestamps. Measured at December



3.000+

Developers attended the offline WordProof Keynotes.



18.000 +

Views of YouTube video's mentioning WordProof.



2.000+

Sites us WordProof (over 700 unique accounts/ addresses interacted with our Smart Contracts.



20+

Conferences, in Europe, Asia and the U.S. Represented with a keynote or merchandising.



275+

WordProof Community members, including 70+ testers from the first hour.



page since it was last timestamped on the blockchain. > Why is this important?

Last edit on October 9, 2019 at 3:12 pm



Discover how this content changed over time

Because this website timestamps every revision on the blockchain, you can compare the different versions.

Content has not changed since the last timestamp Not the website nor a third party has modified the content of this

> View previous versions



Browse through previous versions (X)



tps://www.youtube.com/watch?v=ClMeanZtlSs Here's a fully searchable transcript of the firesi de chat, discussing: WordPress' Marketshare a nd EcosystemBe Independent, Own Your Desti nationOpen-source Eventually Dominates the Sectors it EntersRegulationsMonopoliesDistrib uted WorkQ: I'm delighted to be here to speak with Matt Mullenweg who has had a huge impa ct on the development of the web over the last decade. WordPress was one of the seminal pu blishing tools that really drove a lot of innovati

recent 1/8/2020 at 3:03:55 PM

WODOLOG TO C CONTINUEDO TO SOCIAL HOLWOING, HIL tps://www.youtube.com/watch?v=ClMeanZtlSs Here's a fully searchable transcript of the firesi de chat, discussing: WordPress' Marketshare a nd EcosystemBeEcosystemAn Independent PI atform, to Own Your DestinationOpen-source Eventually Dominates the Sectors it EntersReg ulationsMonopoliesDistributedEntersRegulatio ns WorkQand MonopoliesDistributed WorkWor dPress' Marketshare and EcosystemQ: I'm deli ghted to be here to speak with Matt Mullenwe g who has had a huge impact on the developm



Timestamp check







The Implementation

Timestamping on the blockchain made easy and scalable

Step 1: WordProof API

NRC uses the WordProof API to establish a secure connection.

Step 2: Hashing content Content, containing information about the author, medium and publication date, is hashed and published on the blockchain.

Step 3: Structured Data

Timestamp data is added to the structured data on the webpages of NRC.

Step 4: SEO Ranking

Search engine crawlers can read out the structured data and use it as a ranking factor.

Numbers



246.400 timestamps published per day without a negative impact on server performance

945.000 timestamps published in total which will increase up to 2.500.000 in February 2021

O₊ 4 hours

of development to integrate WordProof

€500 per month

to timestamp the entire NRC operation

- > In February, the first search engine committed to make timestamps part of its algorithm.
- > NRC timestamps are published on the eco-friendly blockchain 'EOS' to minimize environmental impact.

#1 SEO strategy: Simply BE the best result!

- @JdeValk, since ... forever

2014	Does having a mobile version of my site impact my ranking?	YES! - Hence mobile-indexing - It's simply better UX
2017	Does using SSL impact my ranking?	YES! - Google says "Not secure" without - It's better because it's safer
2022	Does radical transparency & accountability impact my ranking?	•••



Timestamps lead to a Trusted Web



Transparency

- Timestamp content
- Show certificate
- Show revisions

Accountability

- Use a custom blockchain account
- Connect identity to your wallet
- Timestamp T&C
- Hold degrees in your wallet



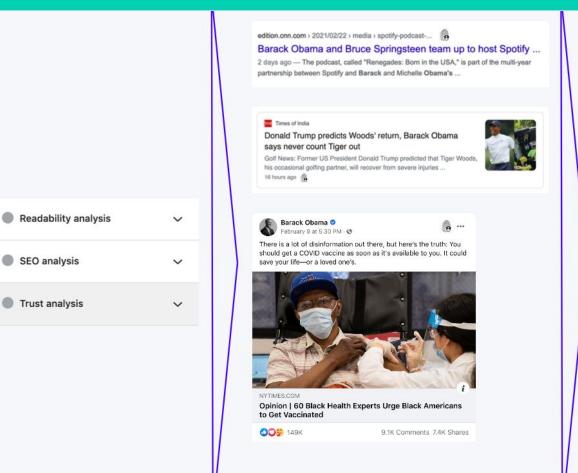
Outputting the timestamps to people & search engines

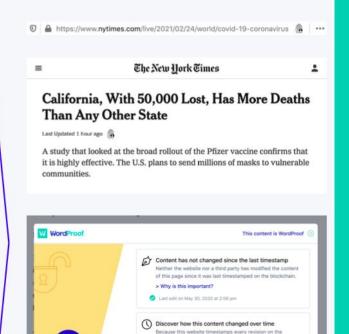
schema.org



- Expertise
- Authority
- Trust







blockchain, you can compare the different versions.

> View previous versions

Published by Sebastiaan van der Lans

Create Discover

Read

WordProof Policy Framework

A truthful internet makes a trustworthy society







GDPR

Unregulated Internet

Law of the jungle

- Makes organizations more responsible for their user's privacy
- Gives citizens more rights regarding their personal data

- If information impacts lives, citizens deserve transparency
- If information impacts lives, citizens deserve a sender to take accountability
- Through the holistic Timestamp Ecosystem







Education

New to The Trusted Web? This short introduction is a good place to start:



The following sequence of posts will get you up to speed on blockchain timestamps and why it matters for policy and regulation.

Timestamps 101

This sequence of videos will get you up to speed on blockchain timestamps, why it matters, and a variety of use-cases:

- What is a Timestamp?
- Database vs. Blockchain Timestamps
- Timestamp Certificates for Content

Research

Get up to speed with our research. Available now are our reports on the State of Misinformation 2021 in Europe and the US.

State of Misinformation 2021 Europe



State of Misinformation in Europe 2021

Or download the report <u>State of</u> <u>Misinformation in Europe 2021</u>.

State of Misinformation 2021 United States



State of Misinformation in the United States 2021

Or download the report <u>State of</u>
<u>Misinformation in the United States</u>
2021.

State of Misinformation 2021 Global



State of Misinformation in the US and EU 2021

Or download the report <u>State of</u> <u>Misinformation in the US and EU</u> 2021.



Let's build the Trusted Web, together!



Sebastiaan van der Lans

Founder & COO WordProof Chairman Trusted Web Sebastiaan@wordproof.com +31 6 4265 7349









trustedweb













Sebastiaan van der Lans

Founder & COO WordProof Chairman Trusted Web Sebastiaan@wordproof.com +31 6 4265 7349









trustedweb



Co-funded by the Horizon 2020 programme of the European Union





Let's build the Trusted Web, together!



Sebastiaan van der Lans

Founder & CEO WordProof Chairman Trusted Web Sebastiaan@wordproof.com +31 6 4265 7349 @delans @wordproofio













