ARTICONF

smART soclal media eCOsytstem in a blockchaiN Federated environment

A novel set of trustworthy, resilient, and globally sustainable decentralised social media services

ARTICONF addresses issues of **trust**, **time-criticality** and **democratisation** for a new generation of federated infrastructure, to fulfil the privacy, robustness, and autonomy related promises that proprietary social media platforms have failed to deliver so far.

The project gathers a team of multidisciplinary cross-sectorial stakeholders, involved both as consortium as well as interest group partners.

Transparent, decentralised infrastructure

Simplify the creation, integration and federation of agile decentralised social media platforms by creating a novel architecture based on a permissioned blockchain that supports anonymised identities.

Improved and trusted participation

Ensure verifiable and traceable content ownership and activity across the network while preserving creator anonymity to identify and prevent the spread of malicious activities for improved and trustworthy participation.

Democratic and tokenized decision-making

Research decentralised reasoning and incentivized decision making techniques to power crowd cooperative applications engage with correct audience through smart matching and proactive community detection for improved participatory exchanges and quality content creation.

Elastic resource provisioning

Improving efficiency and adaptation of distributed P2P and Cloud virtual infrastructures, optimising QoS performance metrics and ensuring fast recovery.

Cognitive analytics for collaborative economy

Socially-aware and spatial-temporal data aggregation, knowledge extraction, guided analytics, automated learning and risk quantification for a collaborative economy.

USE CASE CHALLENGES

Crowd journalism

Validate and reward crowdsourced news, find precise and trustworthy participants and provide time-critical infrastructure resources in geographical proximity to newsworthy events for faster access to breaking news.

Car sharing

Decrease the negative effects of low public awareness of shared mobility and difficulties arising from route planning, optimising business costs, person-to-person lending and collaborative consumption.

Video reviews

Contextualised and thematic search of audio-visual metadata in a large video library, security and privacy within a scalable business model that rewards users for their interactions.

Smart energy

Identify the behavioural convergence of the prosumer decisions over a specific smart appliance for incentivized energy consumption and production analytics.

AMBITION

ARTICONF presents a radically new perspective in the current age of centralised social media controlled by single authorities, by creating an open, transparent and agile ecosystem supported by blockchain technology. This enables decentralised content ownership and validation and enables collaborative decision-making through democratic consensus instead of relying on centralised third parties. This simplifies traceability to identify bad actors and elimination of malicious contents such as fake news and disinformation.

ARTICONF makes use of modern Cloud edge computing technologies for dynamic provisioning of customised computing and Big Data processing resources in close proximity to social media traffic, ensuring time-critical quality of service to all participants. Through its novel socio-cognitive and smart matching techniques integrated into a P2P orchestrated networked infrastructure, ARTICONF facilitates relevant community detection and precise targeting of interest groups while maintaining user anonymity.

IMPACT

ARTICONF delivers a trustworthy, resilient and sustainable, decentralised social media ecosystem based on a set of open source microservices powered by blockchain technology. Stakeholders include:

• Social media application developers and providers will benefit from collaborative participation across diversified geographical boundaries by actively engaging social media users to develop innovative services

• Businesses run on top of social media e.g. mobility-as-a-service [(MaaS) will benefit from federated data sources, trusted and intelligent analytics, guiding strategies for an improved ROI

• Social media users showcasing creativity at a large scale will access a transparent, value-centric, trustful, democratic and inclusive platform with monetization