



University of  
South-Eastern Norway



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**SOFTENG 2021**

The Seventh International Conference on Advances and Trends in  
Software Engineering

# Conceptualization of A GDPR-Mining Blockchain-Based Auditor: A Systematic Review

Gholamhossein Kazemi, Shegaw Anagaw Mengiste  
University of South-Eastern Norway

## **Presenter**

Gholamhossein Kazemi  
Department of Business, Marketing and Law  
University of South-Eastern Norway  
Hønefoss, Norway  
Email: 238834@usn.no

# Bio

## Gholamhossein Kazemi

- Member of National Organization for Development of Exceptional Talents of Iran since 2001
- Holding a bachelor degree of Information Technology Engineering
- Master student of Management Information Systems at USN University of Norway
- Co-Founder of Hiva co since 2017
- Co-Founder of Diginorth co since 2021
- Interest and experience in digitalization of organizations and businesses



# Research Area

## **Gholamhossein Kazemi**

- ▶ Blockchain applications
- ▶ Risk management and risk mitigations
- ▶ Digitalization

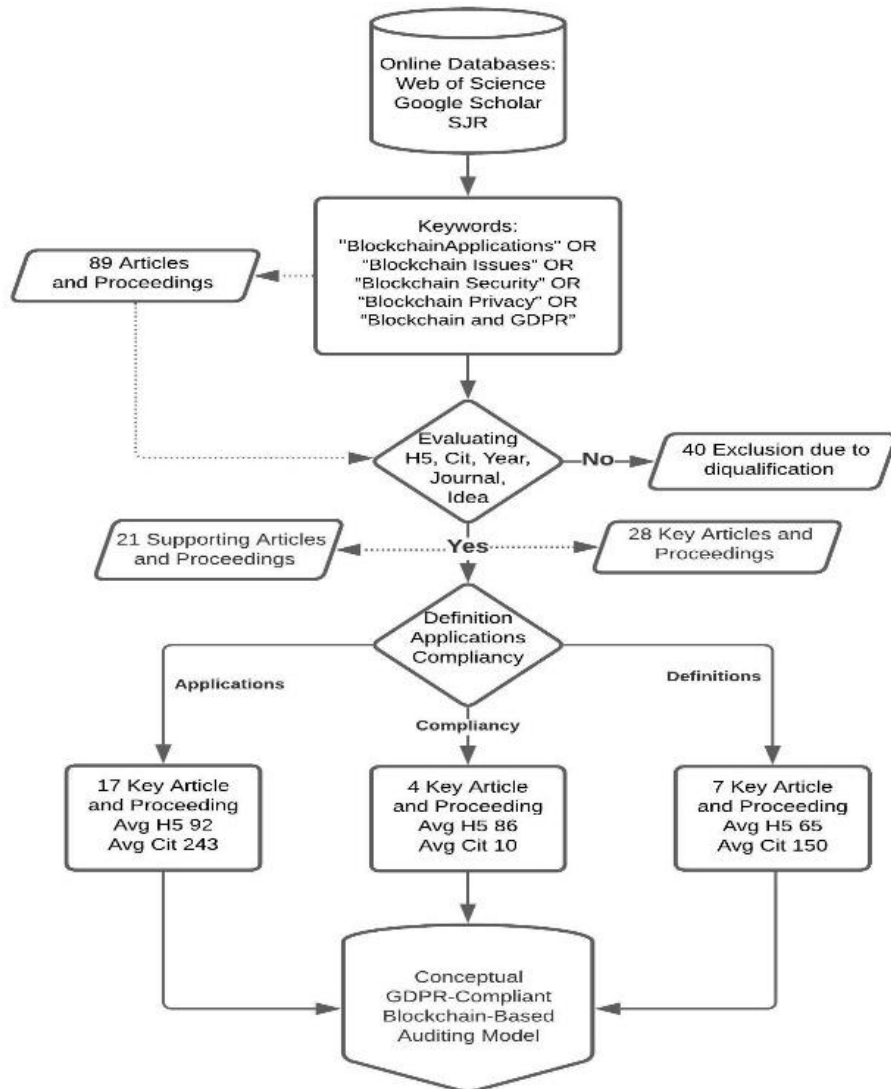
## **Shegaw Anagaw Mengiste:**

- ▶ IS/IT innovation
- ▶ Health information systems
- ▶ Digitalization of public sector organizations
- ▶ IT governance and management
- ▶ IoT
- ▶ Smart cities

# Introduction

- ▶ **Contradictory opinions about Blockchain-GDPR compliance**
- ▶ **Blockchain applications**
- ▶ **Two-way Data monetization**
- ▶ **Blockchain as a solution to monetized personal data management**

# Systematic Literature Review



- **Process**

Criteria

- **Constructs**

GDPR

Blockchain

Consensus Algorithm

- **Applications of Blockchain**

- **Compliance of BC-GDPR**

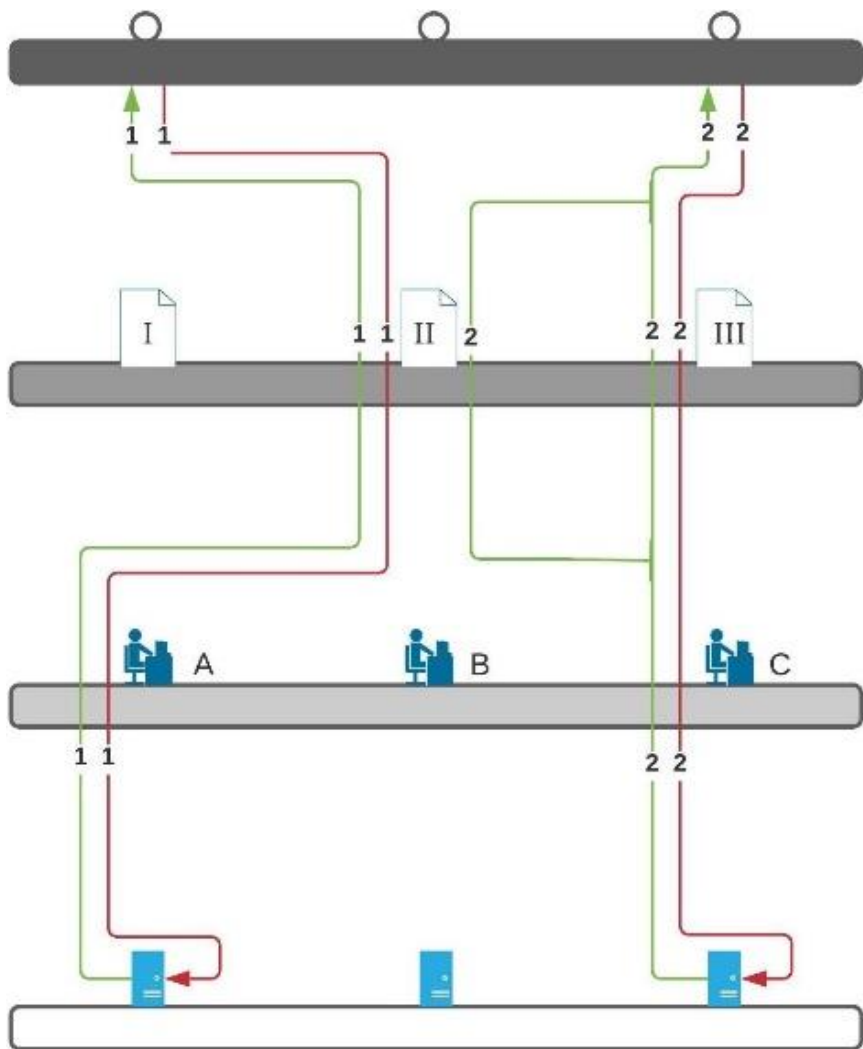
# Results and Gaps










## Results

- Capabilities of blockchain as a GDPR-compatible solution
- Classification of the applications of blockchain
- One-way Monetized personal data management systems

## Gaps

Two-way Monetized GDPR-Compliant data management



-  End Point
-  GDPR Articles
-  Data Subjects
-  Data Processors
-  Third Blockchain
-  Second Blockchain
-  First Blockchain
-  Starting Point
-  Forward Transaction
-  Backward Transaction

# Solution

## A conceptual GDPR-Mining Blockchain-Based Auditor



### Three-layered Blockchain

Public, Private, Consortium

### Two-way Monetized Data Managing

Smart Contracts, Off-Chain storage

### Transaction Audition

GDPR act, Purpose, Transparency

### Consensuses

PoW, DPoS, ZKP

### GDPR Mining

Acts, Nodes, Audition

## Conclusion and Future Work

- ▶ Blockchain as a solution before and after launch of GDPR
- ▶ This is a conceptual model and needs further development to become a pragmatic model



# THANK YOU

This work would have not been possible without the help of the faculty members of the University of South-Eastern Norway. Hence, I would like to thank them all.