

# 基於區塊鏈之論文提交系統

## 成果摘要

隨著違反學術倫理事件日益嚴重，如何確保學術誠信已成為所有學術領域中的重要問題。例如，如何確保所有共同作者同意向會議或期刊提交研究成果是一個重要問題。同時，如何確保評審員和期刊編輯不能剽竊正在審查的論文也是一個重要問題。由於IEEE的道德規則，作者需要一個開放的平台來檢查他們提交的手稿是否包含先前文獻中出現的任何語句。在這項研究中，我們將重點放在學術倫理規則上，並提出一個基於區塊鏈的系統來檢測或防止違反學術倫理規則的行為。為了驗證所提出的系統的可行性和有效性，原型系統也以下展示。

關鍵詞：學術倫理，區塊鏈，不可否認性，剽竊檢查

## 研究方法

選用加密演算法以及傳輸工具

```
Welcome to Relayer-cli 1.0.0

USAGE
$ relayer [PARAM]

OPTIONS
-d, --decode    Decrypt file
-h, --help      show CLI help
-n, --getName   Read Author list
-r, --rec=rec   Receive file [./relayer IP]
-s, --send=send Send file with local Public key [./relayer ORCID PDF]
-v, --version   show CLI version

DESCRIPTION
...
[+] Use ssh-keygen and copy id_rsa and id_rsa.pub in .config/
```

撰寫文本上傳網頁，建立良好UI與串連區塊鏈之應用

Try now!

Full name	Organization
<input type="text"/>	<input type="text"/>
Phone	Email
<input type="text"/>	<input type="text"/>
Abstraction	
<input type="text"/>	
ORCID	
<input type="text"/>	
File	
<input type="button" value="選擇檔案"/> 未選擇任何檔案	
<input type="button" value="SUBMIT"/>	

## 區塊鏈實現

```
C:\Users\ChauhsingTing> virtualenvs\nongodb\Scripts\python.exe C:/Users/ChauhsingTing/PycharmProjects/nongodb/Repository.py
Her ambition and dogged determination ensured that she rose to the top of her profession.
Hash: c76c77ee4b8f91ccae8985506335c34ff7798f43a0b5c382c50a6d7154358
Data doesn't exist! Successful processing!

Stoically, and with great determination, the people set about rebuilding the village.
Hash: e28b78ac99513c73655042cce877d40562dcbe8b14d964acd35c67dda46e34
Data doesn't exist! Successful processing!

Her determination, teamwork skills and leadership capabilities convinced us that she was perfect for the job.
Hash: 2ee3fe649e048f1696ac0e9e23f951f445c71e89d25239670e75f76944666
Data doesn't exist! Successful processing!

The expression on his face was one of grim determination.
Hash: 119a6a59b0a2f9d74228085b74d1e746d3331e361e6337c1f81b1e97629
Data doesn't exist! Successful processing!

Sam Merwin edited the first two issues; Margulies took over when Merwin left, and then hired Frank Belknap Long for the February 1959 issue.
Hash: 92b378ca2693c8b0e066d2c358a367b04b5772a9e74651956a01c3f3ffcf580
Data doesn't exist! Successful processing!

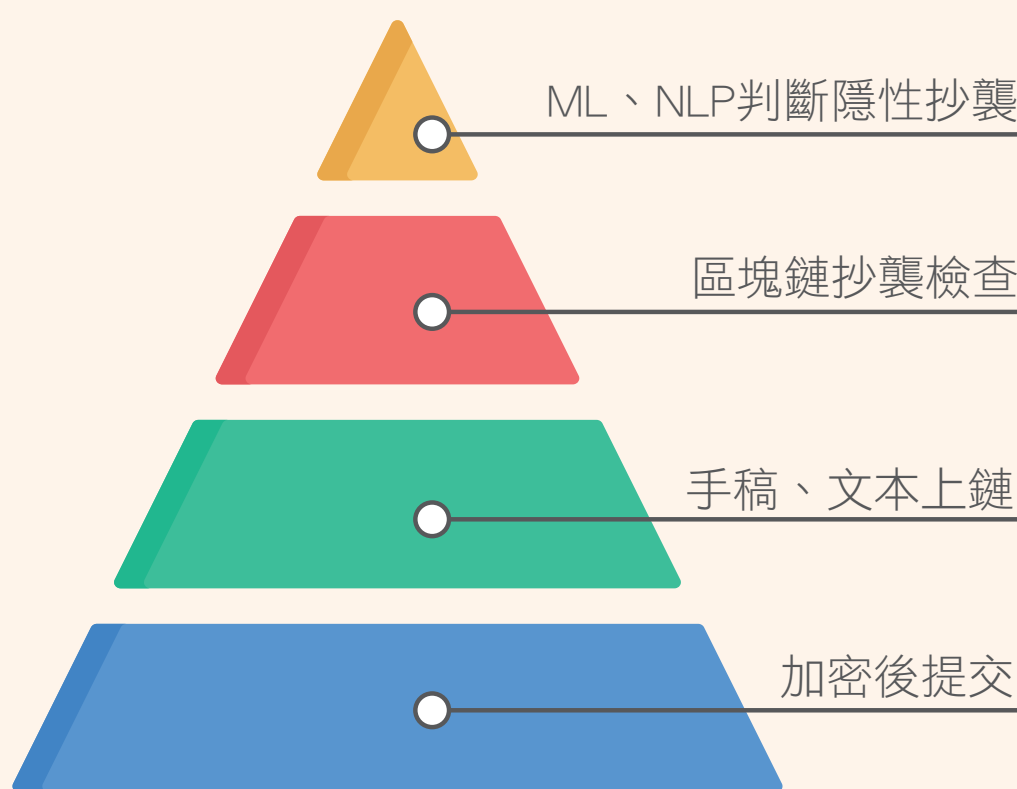
That issue saw the format change to letter-size, in the hope that the magazine would be more prominent on newsstands.
Hash: 040db50b5895d5cc092f72a933bc3809a7d324a88d2f1c82da7804547389
Data doesn't exist! Successful processing!

Her ambition and dogged determination ensured that she rose to the top of her profession.
Hash: c76c77ee4b8f91ccae8985506335c34ff7798f43a0b5c382c50a6d7154358
WARNING!!! DATA ALREADY EXISTS!!!
{'id': 'ObjectIDc5dd32fa2d01a4b08431c0b', 'title': 'paper1.txt', 'sentence': 'Her ambition and dogged determination ensured that she rose to the top of her profession.'}

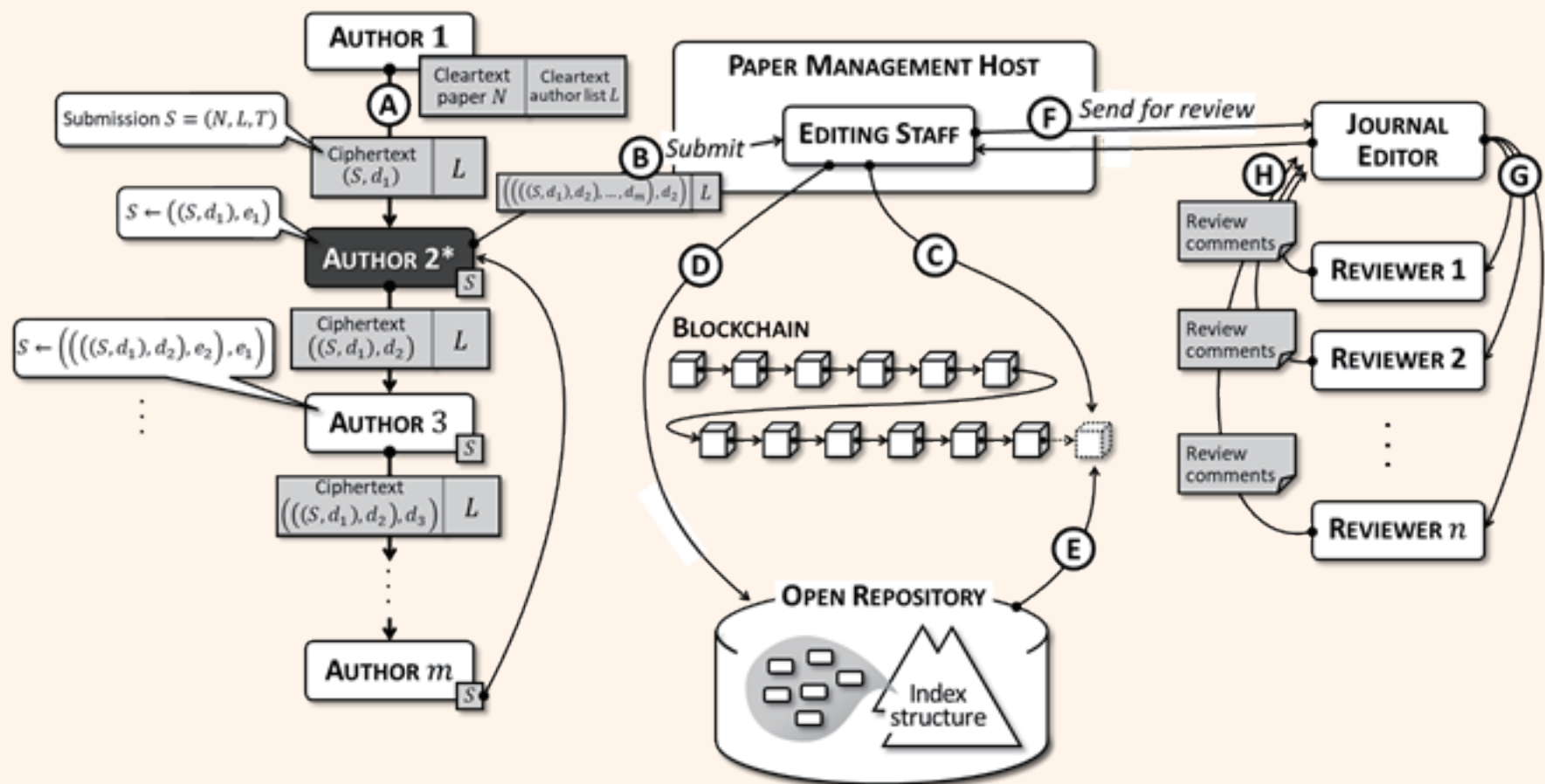
Stoically, and with great determination, the people set about rebuilding the village.
Hash: e28b78ac99513c73655042cce877d40562dcbe8b14d964acd35c67dda46e34
WARNING!!! DATA ALREADY EXISTS!!!
{'id': 'ObjectIDc5dd32fa2d01a4b08431c0b', 'title': 'paper1.txt', 'sentence': 'Stoically, and with great determination, the people set about rebuilding the village.'}
```

## 研究成果

學術倫理的重要性已被廣泛認定，並且隨著違反學術倫理規則的事件越來越多，目前的學術論文審查制度迫切需要進行翻新，以有效地防止或發現這種違法行為。在本文中，我們建議利用區塊鏈技術設計一個論文提交系統和隨附的論文提交協議，以保證作者不可否認性和檢查明確的抄襲。然後通過分析研究驗證所提出的系統和方案，其中獲得的結果非常令人鼓舞。作為我們未來的重點工作，我們將結合自然語言處理（NLP）和機器學習（ML）技術，以更精確地分析學術論文的語義，從而更有效地檢測「隱性」抄襲。我們還將尋求在我們的抄襲檢查策略中整合完全同態加密（FHE），以便更好地保護已提交但尚未接受的手稿的保密性。



## 專題研究架構圖



論文提交過程涉及三個主要的機制，即作者序（圖1，左），論文提交主持機構（圖1，中間），以及編輯和審稿人（圖1，右）