

# 8th Live Subtitling and Accessibility Symposium

## Barcelona, 19 April 2023

# The use of blockchain in media accessibility services

---

Iris Serrat (Universitat de Valencia)

Estella Oncins (Universitat Autònoma de Barcelona)



**MediaVerse**

A universe of media assets  
and co-creation opportunities



UniversidadeVigo

**SWISS TXT**



TRANS  
MEDIA  
CATALONIA



# Outline

---

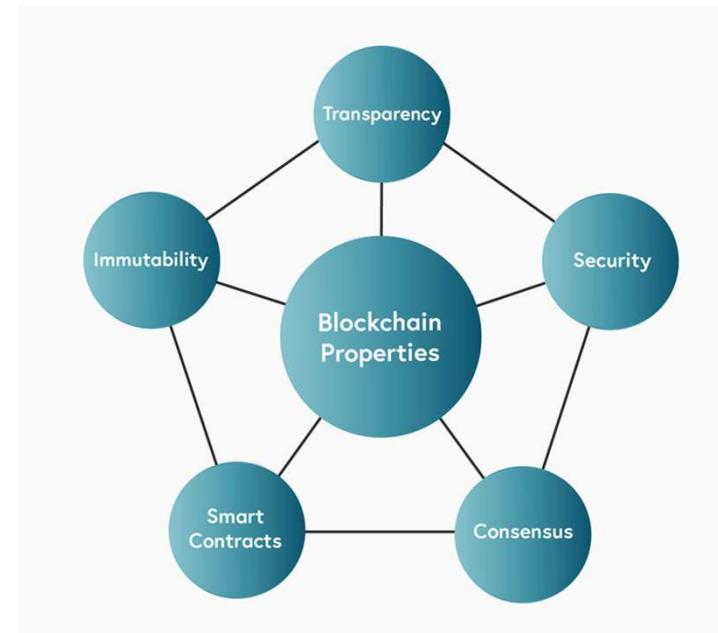
- Blockchain: concept
- Intellectual property and copyright management
- Copyright management in MediaVerse
- Validation of MediaVerse solutions with Media Accessibility professionals
- Conclusions and further steps



# Blockchain: a disruptive technology

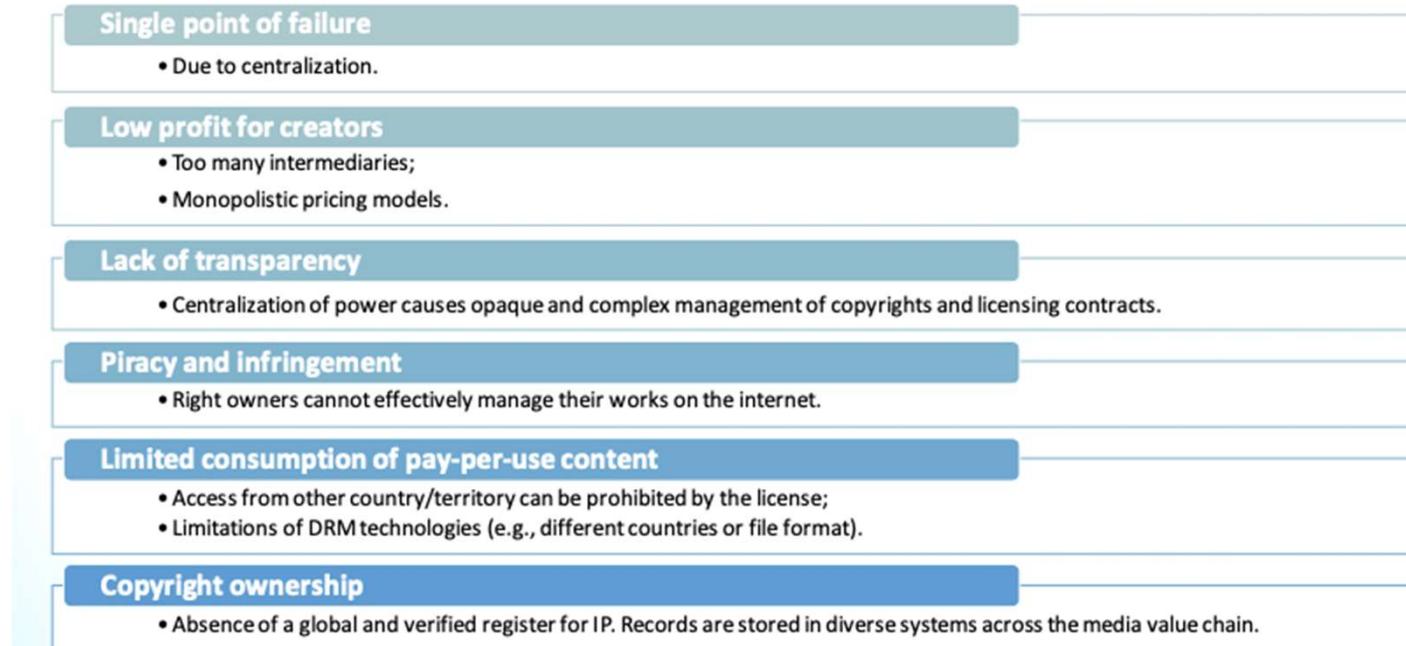
---

Blockchain technology ensures that content creators and consumers have more direct relationships, and profits are distributed fairly.





# Key issues in the audiovisual industry



Source: [Blockchain Council](#)



# Potential blockchain-based solutions

---

1. Decentralised digital content ecosystem
2. New pricing options
3. Monetization of content
4. Distribution of royalty payments
5. From DRM (Digital Rights Management) to smart contract
6. Attribution
7. Copyright management



# Copyright management in MediaVerse

- 
- Handle the legal aspects of copyright definition and procedures for registering copyrights
  - Common digital rights management model
  - Possibility of advanced form of content sharing preserving the IPRs
  - Support copyrightable collective works

Provide a machine-readable format to support the proposed legal framework to allow:

- Representation
- Storage/registration
- Smart negotiation of (multimedia) content according to the correspondent IP definition and license

**Image**

Author: test35@mail.com  
Description: Screenshot 2021-10-15 at 09.45.22.png  
Created: 10/03/1642 18:03  
Key: a74f91f8-300e-4477-90ec-abba065a4490

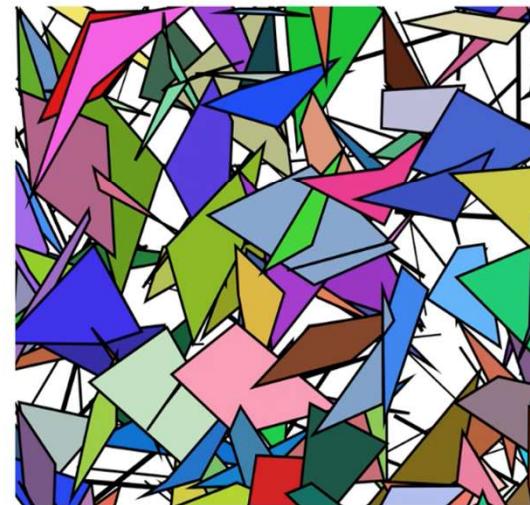


Metadata    License

Not set

Do you need help choosing a license?

[License advisor](#)

**Registering MVDigA**

Author: test35@mail.com  
Description: download.png  
Created: 26/10/2021 11:41

Single Ownership

Select a License

Ownership Deed +

Ownership Deed + CC BY

Ownership Deed + CC BY-SA

Ownership Deed + CC BY-ND

Ownership Deed + CC BY-NC

Ownership Deed + CC BY-NC-SA

Ownership Deed + CC BY-NC-ND

# MediaVerse Use Cases related to copyright management



## Fields:

- Journalism (professionals and academia)
- Audiovisual Translation and Media Accessibility (professionals and academia)
- Audiovisual production (professionals and academia)

## Aims:

- Gather and analyse data from users to understand the existing workflow for production, distribution, and monetisation of digital assets in their fields.
- Gain information about professionals needs and expectations of the MediaVerse platform in relation to copyrights management.

# Copyright management in MA services

---

“Subtitling is the only accessibility service enjoying copyrights, other services such as audio description or subtitles for the deaf and hard of hearing are not considered to be original work worth right protection according to copyright laws.”

(Orero et al. 2023)



# Focus group procedure

---

- Welcome
- Ethical forms and Demographics
- Introduction
- MediaVerse platform (copyrights management)
- Discussion
- Validation of conclusions
- Evaluation form

# Blockchain and Media Accessibility services

## Participants profile



- 
- Age range: 40% (25-34), 20% (35-44), 20% (45-54), 20% (55-64), Gender: 80% woman, 20% men
  - Academical background: 80% (PhD), 20% (MA)
  - Working experience: 40% +10 years, 20% 6-10 years, 40% 3-5 years
  - Technological skills: 60% Advanced, 40% intermediate
  - Level of knowledge about IP and copyrights (0-5 Likert scale): 80% (3), 20% (4)
  - Familiarity with blockchain (0-5 Likert scale): 80% (1), 20% (3)
  - Areas: Live subtitling, AD, Subtitling for the scenic arts, SDH, AVT



# Questions

---

- Do you think that the MediaVerse platform could be used in the subtitling and media accessibility field?
- Within the frame of accessibility and audiovisual translation files (i.e., media accessibility assets) rights management, authors have the moral right over the assets they create. This can never be sold. Thus, assets should be somehow minted for moral ownership. Do you agree?
- Should authors be able to establish the economic rights and rights of exploitation?



# Extracted conclusions

---

- Copyright management remains unknown in MA
- Live subtitling
  - Challenge when several professionals working at the same time (specially in long programmes)
  - In online events and meetings copyright issues are not clear
  - Externalisation of services (who owns the copyrights?)
  - Increasing use of ASR
- Subtitling for the scenic arts
  - Most of the times copyrights are not registered
- AD
  - The platform could be useful to share AD
- Problems raised regarding competency between agencies

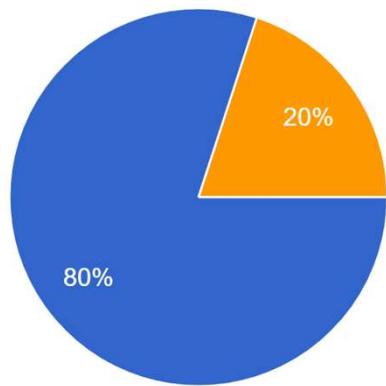


# Willingness to use the platform

---

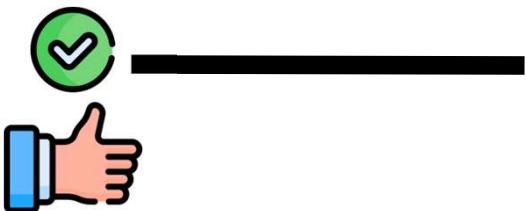
80% would use the Mediaverse platform in their professional field

20% maybe





# Reported advantages and disadvantages



## Advantages

- Easy to share content, not depending on a large company.
- Easy and intuitive platform.
- Allows direct product management.
- Potential use for copyright recognition and distribution of accessible content.



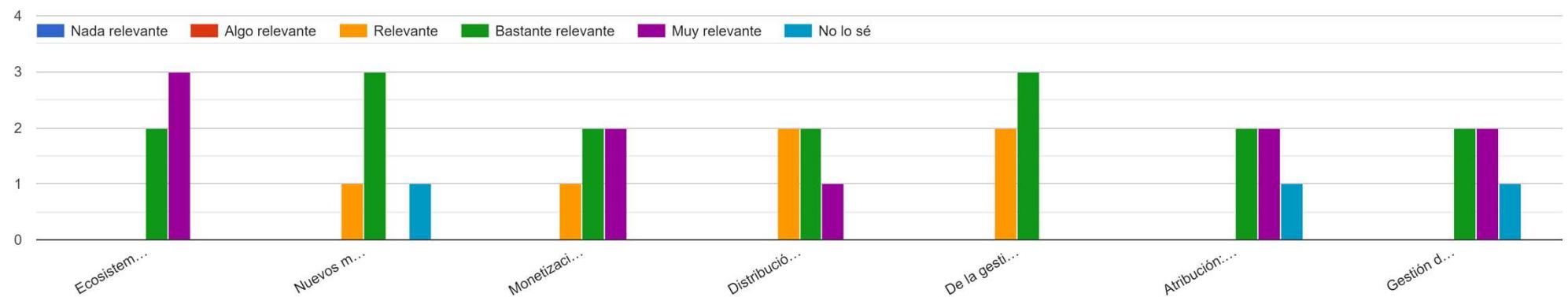
## Disadvantages

- Challenge to "recruit" a broad group of users.
- Little control over the content (perhaps sensitive, private content would be published without consent, etc.).
- Complex for professional relationships with companies in the field.



# Relevance: Proposed blockchain-based solutions

Reported most relevant solution:  
**“Decentralised digital content ecosystem”**





# Conclusions and further steps

---

- Copyright legislative framework in MA services is uneven.
- Positive feedback about the MediaVerse platform related to copyrights.
- Professionals agree that MA services should be registered and licensed (at least moral rights).
- Need to validate with a larger group of users from different fields of the AV industry (professionals and academia).
- Consider questions related to sustainability.



# References

---

- Orero, P.; Fernández-Torné, A.; Oncins, E. (2023). "The visible subtitler: Blockchain technology towards right management and minting". Open Research Europe 2023, pp. 1-10.  
<https://doi.org/10.12688/openreseurope.15166.1>
- Qureshi A, Megías Jiménez D: Blockchain-Based Multimedia Content Protection: Review and Open Challenges. Appl Sci. 2012; 11(1): 1.
- Tong A, Sainsbury P, Craig J: Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007; 19(6): 349–357.



# Thanks for your attention!

---

If you want to learn more about the Mediaverse project and tools

Visit us: [Medaverse](#)

Follow us: @mediaverse\_eu