

# Research Integrity and The Future of Scholarly Communication

**Tiberius Ignat**

Director,  
Scientific Knowledge Services, 2022

Human Rights,  
Trackers, Persuasion  
Scholarly Communication,  
Building trust.

# Topics in this presentation

1. Your Rights (to Digital Privacy)
2. The quintessential elements of scholarly communication
3. Building trust in scholarly communication: tracking and persuasive algorithms
4. Summary and conclusions

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1. **Your Rights to Digital Privacy**
2. The quintessential elements of scholarly communication
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4. Summary and conclusions



**General  
Data  
Protection  
Regulation**

# Article 8 and Convention 108+

## The European Convention on Human Rights

Guide on Article 8  
of the European Convention  
on Human Rights

Right to respect for private and family life,  
home and correspondence

Updated on 31 August 2021



### A. The scope of Article 8

2. Article 8 encompasses the right to respect for private and family life, home and correspondence. In general, the Court has defined the scope of Article 8 broadly, even when a specific right is not set out in the Article. The scope of each of the four rights will be addressed in more detail below.

# CONVENTION 108+ Views from Strasbourg, 2020

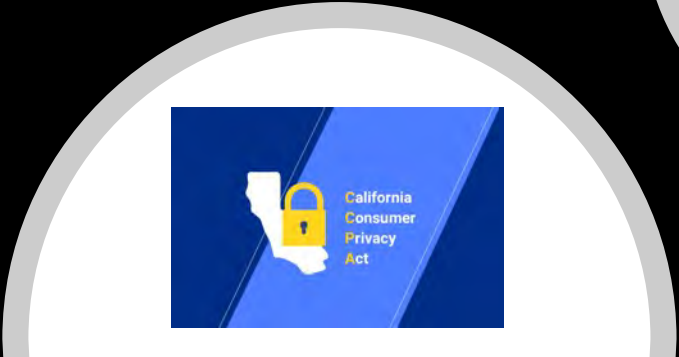
<https://www.coe.int/en/web/data-protection/data-protection-views-from-strasbourg-in-visio-1-3-july>



See more:  
<https://www.coe.int/en/web/data-protection/home>



# Legal Applications

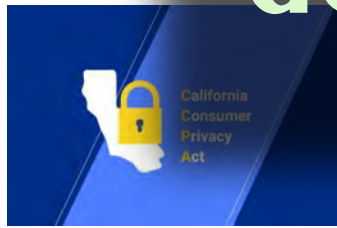




**Legal Applications:**  
frameworks that require  
**active users!**



Good for operation models  
that are  
**designed for users' ignorance**





# Legal Applications in MENA (personal data)



PDPL  
(Personal Data  
Protection Law)



PDPL  
(Personal Data  
Protection Law)



Law on Protection of  
Personal Data No.  
669

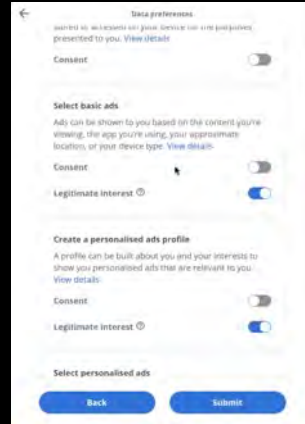


The Egyptian Law No.  
151 of 2020



DPL  
(Data Protection Law)

# Legitimate Interests vs Consent



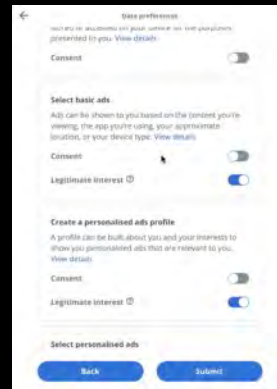
## GDPR about Legitimate Interests?

Article 6 1(f): 'processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of Personal Data, in particular where the data subject is a child.'

<https://vimeo.com/507975440/007aa13057>

# Legitimate Interests vs Consent

## GDPR about Legitimate Interests?



Article 6 1(f): 'processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of Personal Data, in particular where the data subject is a child.'

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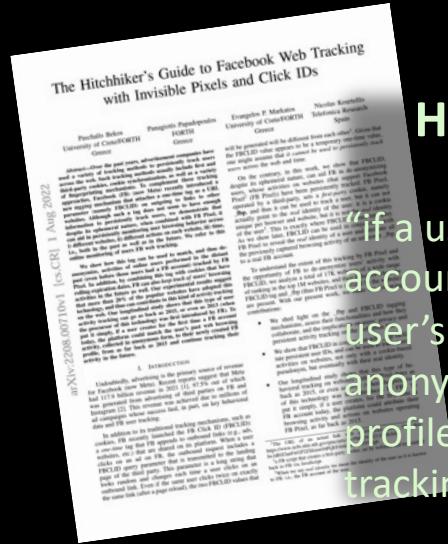
# The Digital Feudalism

<https://towardsdatascience.com/digital-feudalism-b9858f7f9be5>



Queen Mary's Psalter  
Public Domain

# NKTOB: FBCLID (Facebook Click ID)



## How ephemeral is ephemera?

“if a user creates for the first time a FB account today, the platform could match the user’s past web browsing activity, collected in anonymous form, to their newly created FB profile, from as far back as 2015 and continue tracking their activity in the future.”

<https://doi.org/10.48550/arXiv.2208.00710>

# The Responsibility of Your Institution

Library

Publisher

Funder

University

Research Organisation

Technology Developer

Public

Private

NGO

Government

# IMPORTANT to remember!

- You have rights!
- It was hard to build these rights. Hard work remains ahead!
- Institutions have responsibility to protect the rights of individuals.
- We should all stand strong to protect our privacy rights!
- Legal implementations like GDPR, DPA2018, etc are a good start, but clearly insufficient to protect our fundamental rights!



# Topics in this presentation

1. Your Rights to Digital Privacy
2. The quintessential elements of scholarly communication
3. Building trust in scholarly communication: tracking and persuasive algorithms
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# The Quintessential of Scholarly Communication

- Stimulate curiosity, open new routes, flashlight in unknown
- Confront ideas and discoveries
- Communicate the best evidence humans could unveil
- Inform decisions
- Support science translation to society

**Next to citizen science, is one of the vectors that could broaden the research culture outside the Ivory Tower**

# The Quintessential of Scholarly Communication 2030

RIGHTS AND LIBERTIES FOR  
MACHINES

QUINTESSENTIAL ?

# IMPORTANT to remember

- The role of scholarly communication exceeds *Read & Write*
- It is an organised space for confronting ideas, communicate evidence and building trust, and stimulate curiosity
- The Research culture didn't reach the broader public.
  - It's the right time to push the research culture to more humans.
  - It is not the right time to push the research culture to more machines.
- **EXPECT CHANGES AT ALL TIME.** Build humane technologies for research that unlock the full potential of HI (Human Intelligence)
  - AI must be developed only as a humane technology that supports HI

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# Is this Trust?

## Registration Questions

### Required Questions

Please respond to any questions below and click Continue:

Please click on the privacy policy links below and then check the box.

\* I acknowledge that my personal information will be accessed, used and otherwise processed in accordance with the [Publisher's Data User Privacy Policy](#) and the [\[redacted\] Privacy Policy](#).

<< Logout

Continue >>

-----Original Message-----

From: [redacted]  
 Sent: 09 February 2021 13:14  
 To: [redacted] Management Review <[redacted].com>  
 Subject: RE: Review for [redacted] Review - cancelled

Hello,

Thank you for your message - you invited me today, email received in my inbox at 0.11am, and I replied swiftly today advising I am unable to accept the privacy policy of the publisher of your journal. Please see attached emails as evidence for your records.

I'm afraid, unless [redacted] change their privacy policy to be more transparent about the need for all the data collection, so better comply with the GDPR and ePrivacy Directive, I will not be able to review [redacted] publisher journal papers.

Thank you for your understanding.

[redacted]

-----Original Message-----

From: [redacted] On Behalf Of [redacted]  
 [redacted] Review  
 Sent: 09 February 2021 13:09  
 To: [redacted] ac.uk>  
 Subject: Review for [redacted] Review - cancelled

Manuscript Number: [redacted]  
 Is it Really Necessary? A Framework for assessing utility of AI in HRM Practices.

Dear [redacted]

I recently invited you to review the above referenced manuscript.

As you know, timely decisions are of utmost importance to authors. Unfortunately, I must now proceed with evaluating this manuscript without your input.

I hope we will have the privilege of using your services in the future.

Kind regards,

[redacted] PhD

Guest Editor [redacted] Review

Doesn't look like building trust...



# An editorial platform...

---

## 2. COLLECTION OF PERSONAL INFORMATION

There are two primary methods through which we may collect personal information from you. The first method is in connection with the establishment of your user account. The specific personally identifiable information that we collect in connection with the account registration process (“Registration Information”) may vary depending on the specific requirements of the Publisher or the Publication, but typically includes your name, e-mail address, and the name of the institution or association with which you are affiliated. During the registration process, we may also collect other information, such as your address and telephone number.

The second method is when you make personally identifiable information available while using the Website, the Software or the Services (“User Information”). You may make User Information available in connection with the submission, editing, and/or review of a

# An editorial platform...

## “COLLECTION OF PERSONAL INFORMATION:

There are two primary methods through which we may collect personal information from you.”

### User Account (Registration Information)

The first method is in connection with the establishment of your user account. The specific personally identifiable information that we collect in connection with the account registration process (“Registration Information”) may vary [...] but typically includes your name, e-mail address, and the name of the institution or association with which you are affiliated. During the registration process, we may also collect other information, such as your address and telephone number.

### User Activity (User Information)

The second method is when you make personally identifiable information available while using the Website, the Software or the Services (“User Information”). You may make User Information available in connection with the submission, editing, and/or review of a Manuscript, and/or the uploading, submission, or transmission of other User Submissions. For example, if you are an Author and elect to submit a Manuscript, you have the option of providing additional information that you believe may be of interest to the Publisher or the Publication, such as your age, gender, race, life or professional experiences, and academic or professional qualifications. Alternatively, a Publisher or Publication may request that you provide certain information in connection with the submission of a Manuscript, including information such as your age, gender, race, protected status, life or professional experiences, and academic or professional qualifications.

# An editorial platform...

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“OUR USE AND SHARING OF YOUR PERSONAL INFORMATION:

## Statement 1

OUR ORGANISATION does not claim ownership of any of your Registration Information or User Information (collectively, “Personal Information”). OUR ORGANISATION collects and stores Personal Information on its servers and computer networks solely on behalf of the Publisher and/or the Publication. All Personal Information is owned by the Publisher and/or the Publication and may be accessed by the Publisher or the Publication at any time. At the request of the Publisher or the Publication, Aries Systems will disclose your Personal Information to the Publisher or the Publication.

# An editorial platform...

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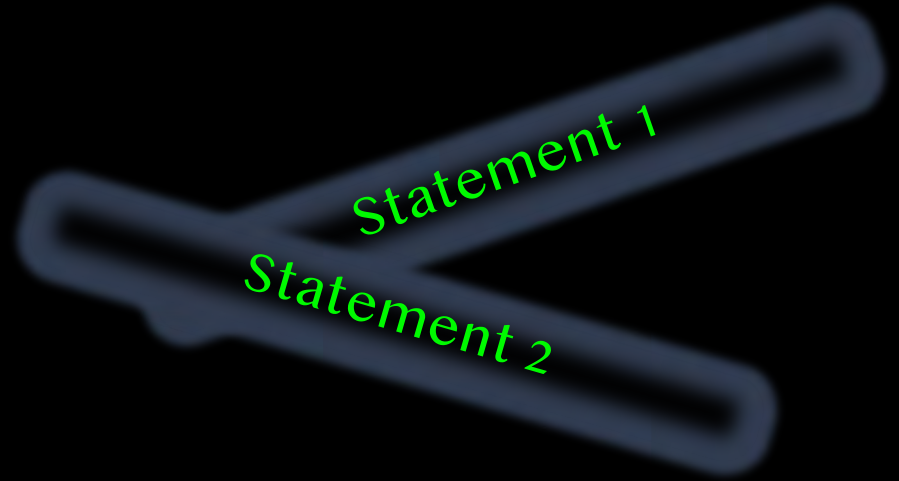
“OUR USE AND SHARING OF YOUR PERSONAL INFORMATION:

## Statement 2

In addition to disclosing and making your Personal Information available to the Publisher and/or the Publication, we may disclose your Personal Information:

(a) to our business partners, service providers and agents, such as financial institutions, suppliers, delivery services, parties providing hosting services, and web and technical support providers, as is necessary or required in connection with the operation, maintenance and support of the Website, the Software, and/or the Services, in which case we will require that such third parties maintain the confidentiality of your Personal Information in accordance with the terms of this Privacy Policy;

# An editorial platform...



# An editorial platform...

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Statement 1

Statement 2

“CLICKSTREAM DATA; AND COOKIES:

In addition to the Personal Information that you supply to us, we may collect, store and use certain, anonymous information known as “Clickstream Data” as you access and navigate the Website..

The Service collects information through the use of “cookies” or similar technologies.”

# An editorial platform... a spaghetti policy





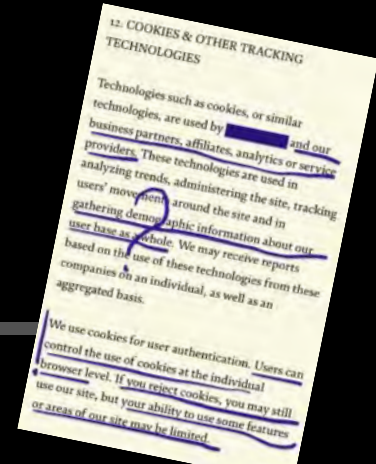
# An editorial platform... a spaghetti policy

**Accept All**

ADDITIONAL STATEMENTS ...

Statement 1

# Buildin trust or misleading?



If you have any questions about the use of cookies on our website please e-mail us at [redacted]

[redacted] We partner with a third party to either display advertising on our website or to manage our advertising on other sites. Our third party partner may use cookies, or similar technologies, in order to provide you advertising based upon your browsing activities and interests. If you wish to opt out of interest-based advertising, click [redacted]. Please note you will continue to receive generic ads.

## 7. THIRD PARTIES

[redacted] will only share personal information with third parties in the specific ways that are described in this Privacy Policy.

In certain situations, [redacted] may be required to disclose personal data in response to lawful requests by public authorities, including to meet national security or law enforcement requirements.

[redacted] does not sell, rent, or otherwise provide your personal information to third parties unless we have your permission or are required by law so as to comply with a subpoena or similar legal process. Please note that in order to deliver certain services (for example, Chapter publication), we may share information with third parties. To process payments made by you, we share some of your information with the payment processing company we use. While you

MENU

no real choice!

### Privacy Policy

This privacy policy applies to [redacted] owned and operated by [redacted] (hereafter referred to as [redacted]; "We", "Us", or "Our"). This Policy sets out how [redacted] uses and protects any information that you, the ("user") give when you use this website. [redacted] is committed to ensuring that your privacy is protected at all times. Should we ask you to provide certain information by which you can be identified when using this website, you can be assured that such information will only be used in strictest accordance with this Privacy Policy.

[redacted] uses cookies to offer you the best online experience. By continuing to use our site, you agree to our [Privacy Policy](#)

Got it!

## 6. OPEN ACCESS

[redacted] All published Work will be permanently and freely available on our webpage. Certain personal information such as first name, last name, affiliation and email address shall be publicly visible and available along with the published Work. It is the basis of Open Access to freely share all scientific Work and information associated with those Works.

## 18. CHANGES IN THIS PRIVACY POLICY

If we decide to change our Privacy Policy, we will post those changes to this Privacy Policy, the home page, and other places we deem appropriate so that you are aware of what information we collect, how we use it, and under what circumstances, if any, we disclose it.

We reserve the right to modify this Privacy Policy at any time, so please review it frequently. If we make material changes to this Policy, we will notify you on this page, by email, or by means of a notice on our Home page, 30 calendar days prior to implementing the change.

## 4. ADDITIONAL INFORMATION COLLECTED

In order to deliver a better service, [redacted] tracks patterns of use on this site. We note which links are clicked on to determine what areas, chapters, and books are of interest to our visitors. As with all websites, we automatically receive from Internet usage, information such as your IP address, browser type, internet service provider (ISP), referring/exit pages, operating system, date/time stamp, and/or clickstream data, your mobile provider and your mobile device. We store all data in log files. We use cookies and other technologies to recognize you, study traffic patterns on our website, and customize your experience.

You can choose to accept or decline cookies. Most web browsers automatically accept cookies, but you can usually modify your browser setting to decline cookies if you prefer. This may prevent you from taking full advantage of the website.

- Provide your personal details to third parties, as outlined above, offering combined services with [redacted], enabling you to share your information and communicate with other users

[redacted] does not sell, rent, or otherwise provide your personal information to third parties unless they are publicly available as part of the publishing activities, or we have your permission, or are required by law to do so. IntechOpen may change this Policy from time to time by updating this page. You are invited to check this page to ensure that you agree with the changes.

# Example from a research library

WE USE COOKIES EXCLUSIVELY TO PROVIDE A BETTER USER EXPERIENCE - CHANGE SETTINGS ?

- Social networks** Facebook, Twitter and other social networks need to know who you are to function properly.
- Analytics** To improve the user experience, we collect anonymous data about the use of the website.
- I agree
- ?!



?

Privacy Policy?

# Example from a research library

## Results for [www.██████████](https://www.██████████)

HTTPS by default:	⚠ Yes, but has issues
Content Security Policy:	✗ Not implemented
Referrer Policy:	✗ Referrers leaked
Cookies:	6 (6 first-party; 0 third-party)
Third-party requests:	16 requests to 7 unique hosts

SHOWING RESULTS FOR  
<https://██████████>

SCAN #1 LAST SCAN: 2022-06-23 @ 13:52 - 13:59

OVERALL RATING





NoTrack



EncWeb



Attacks



EncMail

Take this with a grain of salt! Some of our checks may report wrong results. [ESTA](#)

---

 **Check whether web and mail servers are located in the same country** unreliable

The geo-location(s) of the web server(s) and the mail server(s) are not identical. ⌵

---

**EncWeb: Encryption of Web Traffic**

 **Check whether the SSL certificate is valid** unreliable

Server uses an invalid SSL certificate. ⌵

All certificate trust checks failed; (chain incomplete).

# Example from a research funder

# Example from a research funder

SHOWING RESULTS FOR  
https://www.██████████

SEARCHED: 2022-06-22 @ 13:20 (13:21)

OVERALL RATING

Take this with a grain of salt! Some of our checks may report wrong results.

**Check for presence of Content Security Policy** slow

The site does not set a Content-Security-Policy (CSP) header.

**NoTrack: No Tracking by Website and Third Parties**

**Check if 3rd party embeds are being used** reliable

The site is using 4 third parties.

ajax.googleapis.com   code.jquery.com   fonts.gstatic.com   maxcdn.bootstrapcdn.com

**Check for protection against LUCKY13** informational



The server may be vulnerable to the LUCKY13 attack.






# Is this Trust?


  Built to last! Embe.

Are you the Tiberius Ignat who wrote "Built to last! Embedding open science principles and..."?

  01 Ignat Open Scien.

Tiberius Ignat  Did you write "01 Ignat Open Science and Seachange Research 2\_1"?

  Citizen Science and.

Tiberius Ignat  Did you write "Citizen Science and Libraries: Waltzing towards a collaboration"?



Building trust or deviating?



# Open Science and The Future of Scholarly Communication: Internet Trackers and Algorithmic Persuasion

## Perspectives on Open Science and The Future of Scholarly Communication: Internet Trackers and Algorithmic Persuasion

Tiberius Ignat<sup>1,2</sup>, Paul A. H. Jones<sup>3</sup>, Beatrice Gini<sup>4</sup>, Olga Stepankova<sup>5</sup>, Deniz Öztümer<sup>6</sup>, Damia Bai<sup>7</sup> and Vordanka Stankova<sup>8</sup>

<sup>1</sup> Leibniz-Institut für Wissensökonomie, Berlin, Germany, <sup>2</sup> ODOS - Library, Culture, Collections, Open Science, University College London, University of London, London, United Kingdom, <sup>3</sup> Cambridge University Library (CUL), University of Cambridge, Cambridge, United Kingdom, <sup>4</sup> CERIC (Czech Institute of Informatics and Robotics and Cybernetics), ECAT (Biomedical Engineering and Assisted Technologies) Department, Czech Technical University in Prague, Prague, Czechia

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The digital content industry is heavily oriented towards building platforms that track user behaviour and seek to convince them to stay longer and come back sooner onto the platform. Similarly, authors are incentivised to publish more and to become champions of dissemination. Arguably, these incentive systems are built around public reputation supported by a system of metrics to be assessed. Generally, the digital content industry and its contributors (algorithms) that are able to generate views, we have run a pilot study to determine the opportunity for conducting research about the use of “track and persuade” technologies in scholarly communication. Building our collected observations on a sample of 148 relevant websites and we interviewed 15 that are experts related to the field. Through this work, we tried to identify 1) the essential questions that could inspire proper research, 2) good practices to be recommended for this field, and 3) whether citizen science is a suitable approach to further research in the field. Trust is a suitable approach to determining a broader solution for building trust as a framework to see if they offer insights into this work going forward.

**INTRODUCTION**

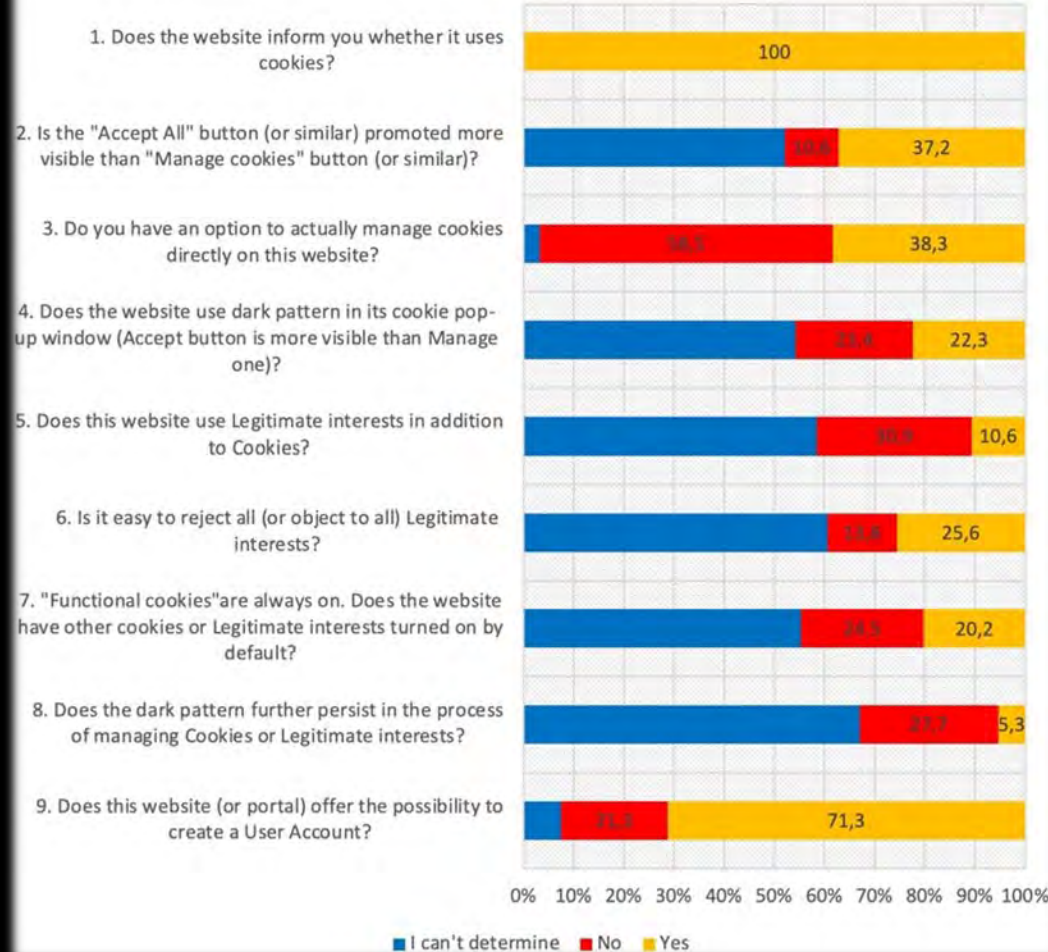
Open Science is part of the “new normal” as the world emerges from the covid-19 pandemic. Access to publications is now a well-developed phenomenon for research outputs. In Europe, there are eight themes which are commonly seen to be part of Open Science principle and practice, including *Research Integrity* and *The Future of Scholarly Communication*, both being the subject of our perspective paper. These are: 1) Rewards and Incentives, 2) Indicators and Next-Generation Metrics, 3) Future of Scholarly Communication, 4) European Open Science Cloud (EOSC), 5) FAIR data, 6) Research Integrity, 7) Skills and Education, 8) Citizen Science (Open Science EU, 2020).

# Quantitative Study

148 websites

- 94 – yes, we use cookies
- 54 – no info.

## Users' perception of tracking technologies on 94 webpages that inform their visitor about presence of cookies (CC dataset)



<https://doi.org/10.5281/zenodo.5139523>

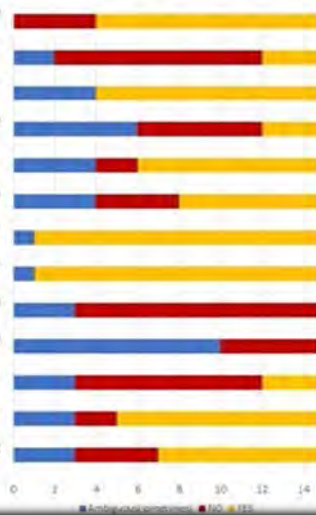
# Qualitative study

## Interview responses

### Questions

1. Are you aware of the use of cookies in scholarly communication?
2. Do the scholars have a fair opportunity to give a mindful consent?
3. Is use of trackers comparable or more frequent in scholarly communication than in general?
4. Do you read the privacy policies in scholarly communication platforms?
5. Given opportunity, do you manage cookies/trackers?
6. Do you know what is the purpose of trackers in scholarly communication?
7. Can you give an acceptable set of purposes for tracking?
8. Can you give an unacceptable set of purposes for tracking?
9. Has the ethics of tracking in scholarly communication been discussed sufficiently?
10. Do you approve substituting info about "Cookies" by info on "Legitimate Interest"?
11. Is using "dark patterns" an ethically appropriate practice?
12. Are research ethics, the ethics of tracking, and Open Science principles connected?
13. Should something change regarding tracking technologies?

### General responses



### Excerpts from answers

- Because I have my mind focused on scientific themes I am not able to examine/delete cookies at that time.
- Often, you can't do anything useful on a website without consenting to them
- Publishing houses are working somehow differently, but if I check... it is clear everybody is in.
- I don't read because it doesn't make sense. If I do not accept them, I will not be able to use the services.
- I usually disable the trackers. However, I tend to be less cautious in case of pages related to research
- Trackers help to build nice services ...everybody likes but at a cost the publisher knows more about you than you
- Security, usage statistics, and improvement of services
- Selling the collected data to third parties.
- There are many examples that what was ethically correct a few years ago is unacceptable now and vice versa
- I am not fully knowledgeable in this aspect ... I would be interested to learn about it for sure.
- It is not an appropriate practice that forces users to make a greater effort if they want to reject something
- I can't think of a FAIR scholarly communication system where the rights and governance is not in the hands of the scientists
- A set of principles/standards should be agreed by the academic community

**What are the essential  
questions for the scholarly  
communication  
community?**

- 1. How should current institutional/national/international codes of good research conduct be modified to reflect the findings of this and similar studies?**
- 2. Who is governing the development of those technologies?**
- 3. How can Open Science help in identifying both threats and opportunities**
- 4. What vulnerabilities are brought to the research community by any lack of action?**
- 5. What are the real opportunities for researchers and for society?**

- 6. What is realistic and what is utopic in these technologies?**
- 7. What are the demonstrated positive effects of those technologies?**
- 8. How can we ensure that these technologies develop human-centric?**
- 9. What system could guard the researchers from being manipulated by such technologies?**
- 10. What is the impact of such technologies on educating the next generations of curious minds?**



# What are the risks for the scholarly communication

1. Change the readership.
2. Build and exploit researchers' psychographic profiles .
3. Influence / manipulate the hypothesis (refinement).
4. Inhibit curiosity and creativity

# Recommendations for the scholarly communication community

## Recommendations for the Scholarly Comm community

1. Guidance for best practice
2. Codes like ALLEA: revisions
3. Raise awareness. Educate
4. Joint effort: funders,  
universities, publishers, tech  
companies
5. Global approach
6. Citizen science approach

# The importance of further research

# The Team

1. Dr Tiberius Ignat, SKS
2. Dr Paul Ayris, UCL
3. Dr Beatrice Gini, Cambridge University
4. Prof. Olga Štěpánková, Czech Technical University in Prague (CVUT)
5. Damla Bal, SKS
6. Yordanka Deyanova, SKS
7. Deniz Özdemir, CVUT



Inspired by



Citizen Scientists  
Investigating Cookies  
& App GDPR Compliance

[www.csi-cop.eu](http://www.csi-cop.eu)

<https://stoptrackingscience.eu/>

**Stop Tracking Science**

# IMPORTANT TO REMEMBER

- <https://doi.org/10.3389/frma.2021.748095>
  - It contains recommendations and essential questions
- Libraries, Publishers, tech companies from scholarly comm have a lot to improve in their digital practices
- For correcting the current practices it is recommended dialectic dialogue between stakeholders and Public-Private Partnerships
- A more comprehensive study is urgently needed. It is fit for citizen science approaches



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1. Your Rights to Digital Privacy
2. The quintessential elements of scholarly communication
3. Building trust in scholarly communication: tracking and persuasive algorithms
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# TAKE AWAY

- You have rights! It's your duty to protect them. Institutions included. Stand strong!
- **BUILD YOUR OWN FUTURE!** Scholarly Communication Quintessential 2030
- HI (Human Intelligence) on the priority seat. AI to support that new culture.
- Read & Engage: *Open Science and The Future of Scholarly Communication: Internet Trackers and Algorithmic Persuasion*  
(<https://doi.org/10.3389/frma.2021.748095>)
  - It contains recommendations and essential questions
- A more comprehensive study is urgently needed. It is fit for citizen science approaches

# THE PATH FORWARD

**IMMEDIATE STAKEHOLDERS  
ENGAGEMENT  
DIALECTIC DIALOGUE & DECISIONS**

**CODE OF CONDUCTS  
GOOD PRACTICE**

**AWARENESS  
MEANINGFUL RHETHORIC**

**Tiberius Ignat**

Scientific Knowledge Services

@TiberiusIgnat

[www.linkedin.com/in/tiberiusignat](http://www.linkedin.com/in/tiberiusignat)

# QUESTIONS?

*Perspectives on Open Science and The Future of Scholarly  
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Persuasion. Front. Res. Metr. Anal. 6:748095.*

***doi:***

***10.3389/frma.2021.748095***