

Publication of court records: circumventing the privacy-transparency trade-off

Louis Béziaud

louis.beziaud@irisa.fr

Univ Rennes, CNRS, IRISA

Université du Québec à Montréal

26 March 2021



Outline

- Introduction
 - Current practice
 - Advances in privacy
 - Multimodal publication
 - Conclusion
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- *AI Approaches to the Complexity of Legal Systems* workshop at JURIX'20
 - *Law and Machine Learning* workshop at ICML'20
 - ✎ Tristan Allard, Louis Béziaud, and Sébastien Gambs. “Online publication of court records: circumventing the privacy-transparency trade-off”. In: *ArXiv abs/2007.01688* (2020)

Big (legal) data

- Public online access to massive number of court records
 - 1 M sur Légifrance (France)
 - 2.7 M sur CanLII (Canada)
 - 6.7 M sur Caselaw (USA)
- Natural language + (few) meta-data



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new CASE OF FİKRET KARAHAN v. TURKEY

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Violation of Article 6+6-3-d - Right to a fair trial (Article 6 - Criminal proceedings Article 6-1 - Fair hearing) (Article 6... [more...](#))

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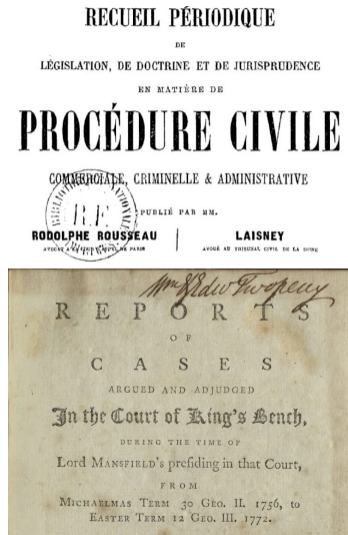
new CASE OF KARAHASANOĞLU v. TURKEY

21392/08 53870/09 32844/17 | Available only in [English](#) | Judgment (Merits and Just Satisfaction) | Court (Second Section) | 16/03/2021

Remainder inadmissible (Art. 35) Admissibility criteria (Art. 35.1) Exhaustion of domestic remedies No violation of Article 6... [more](#)

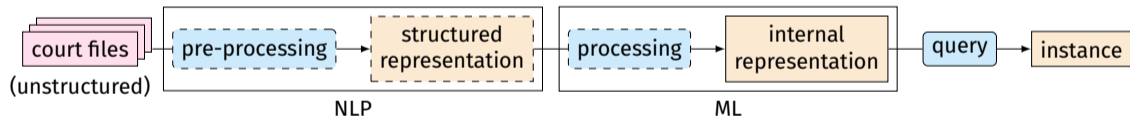
Open justice

- “Publicity is the very soul of justice” (Bentham)
- Transparency
 - ☞ Trust, bias inspection
- Accessibility
 - ☞ Utility constraint (case law)
- Paradigm shift
 - from paper-based and in-person court hearings to electronic records
- Open-government projects (OECD, OGP, OGI)
- Massive processing
 - ☞ New technologies: Legaltechs



Legal technologies

- Use court records for document automation, e-discovery, analytics, etc
- Fast expanding market¹
- Buzzwords IA + NLP



¹LawGeex. *Legal Tech Buyer's Guide*. 2019.

Privacy risks

- Judges fear retaliation and coercion (mafia, terrorism, etc)²³
- Risk of legal optimization (eg. judge analytics)
- “Google is linking secret, court-protected names—including victim IDs—to online coverage”⁴
- Linking to other databases for profiling, risk scoring, etc

²Jean-Baptiste Jacquin. “Terrorisme : la peur des magistrats”. In: *Le Monde* (Jan. 2017).

³Caroline Fleuriot. “Avec l'accès gratuit à toute la jurisprudence, des magistrats réclament l'anonymat”. In: *Dalloz Actualité* (Feb. 2017).

⁴Andrew Duffy. “Google is linking secret, court-protected names including victim IDs to online coverage”. In: *Ottawa Citizen* (2017).

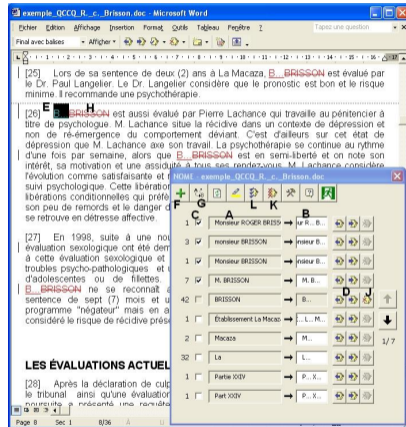
Current privacy protection

- Pseudonymization of names (with court-level rules)
- Manual process (with software support) in 75% of EU countries⁵
- Approach similar to medical data anonymization: “search and replace”
- Few research on anonymization of natural language with formal privacy guarantees

✓ Human readable

✓ Analytics

✗ Privacy



⁵Marc Opijnen et al. *On-line publication of court decisions in the EU*. 2017

Limits of redaction

Cour d'appel de Paris 11ème chambre, section B Arrêt du 14 février 2008

the Real Madrid Club de Futbol association and several players of this team, Zinedine Z., David B., Raul Gonzalès B. aka Raul, Ronaldo Luiz Nazario de L., aka Ronaldo, and Luis Filipe Madeira C., aka Luis Figo

- follows the privacy recommendations of the CNIL from 2006
- ☞ background knowledge and pseudonyms

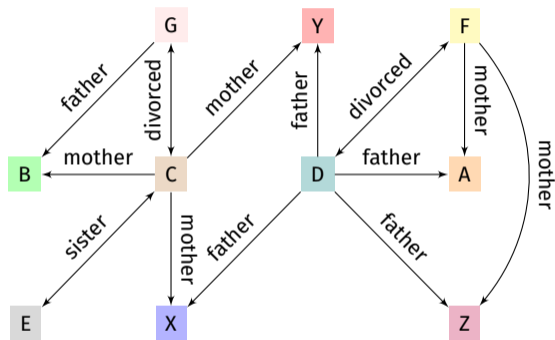
Limits of redaction

Protection de la jeunesse – 186470, 2018 QCCQ 6920

Applications are submitted for X, aged 1 year, and Y, aged 2 months. The Director of Youth Protection would like X to be entrusted to her aunt, Ms. E, until June 25, 2019. As for Y, that he be entrusted to a foster family for the next nine months. The father has two other children, Z and A, from his previous union with Mrs. F. The mother has another child, B, from her union with Mr. G

Limits of redaction

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👉 background knowledge

Limits of redaction

Cour de cassation, civile, Chambre civile 1, 10 avril 2013, 12-14.525

the American company Coca Cola Company markets drinks under the French trade mark “Coca Cola light sango”, of which it is the owner; M. Abdel X, relying on the infringement of his artist's name and surname, has brought an action for damages against the Coca Cola Company

Mr. X, he was entitled to the respect of his family name, which is also his artist's name, so that it is not ridiculed by its apposition next to a brand of soft drink.

Abdel X maintains that the patronymic name X has an exceptional reputation since Sango is the language of the language of the Ubangi group in the Central African Republic, spoken by two million people;

👉 semantics

In the meantime...

- Privacy scandals led to major breakthroughs for publishing structured data privately
- Differential privacy⁶: $\Pr[\mathcal{M}(x) \in \mathcal{S}] \leq e^\epsilon \cdot \Pr[\mathcal{M}(y) \in \mathcal{S}]$
 - “An observer cannot tell whether the information from a particular individual were used in the calculation”
 - Self-composable and safe under post-processing
- Differentially private NLP models⁷

✗ Human readable

✓ *Aggregate* analytics

✓ Privacy

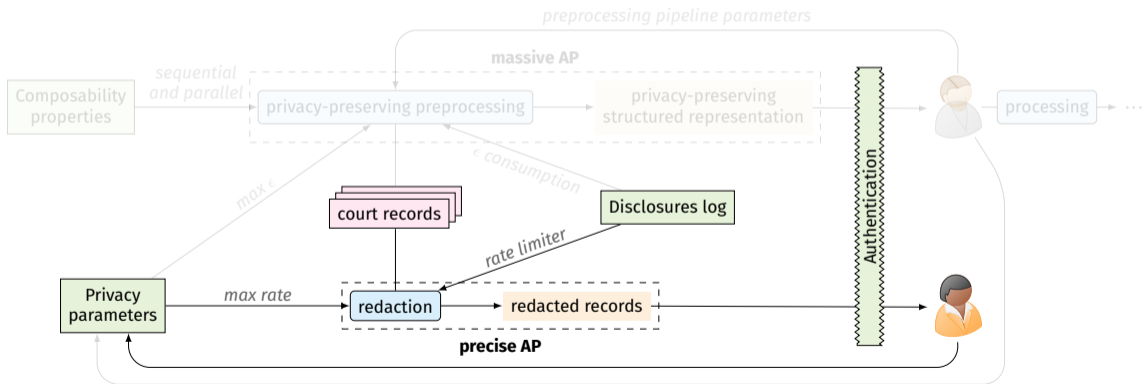
⁶Cynthia Dwork. “Differential privacy”. In: *ICALP*. 2006.

⁷Benjamin Weggenmann and F. Kerschbaum. “SynTF: Synthetic and Differentially Private Term Frequency Vectors for Privacy-Preserving Text Mining”. In: *ACM SIGIR (2018)*, Natasha Fernandes, Mark Dras, and Annabelle McIver. “Generalised Differential Privacy for Text Document Processing”. In: *POST*. 2019.

Towards a multimodal publication scheme

👉 Reconcile privacy with transparency by distinguishing two needs:

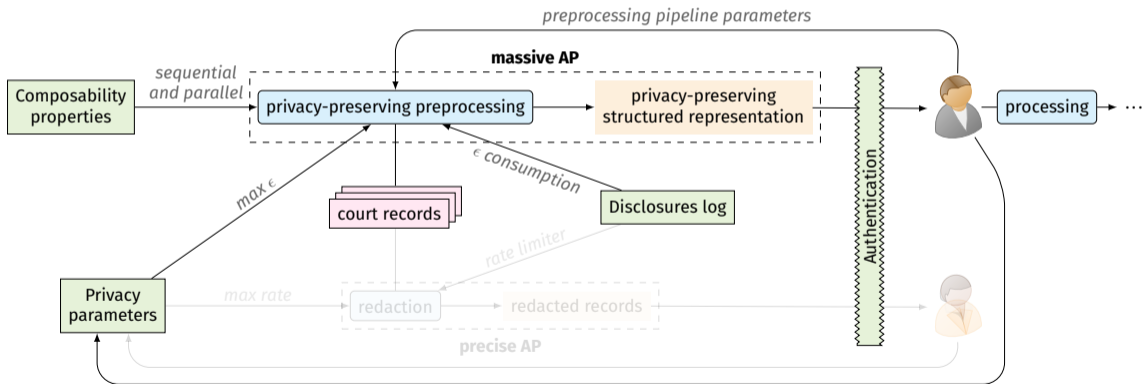
- “Precise” access
- “Massive” access



Towards a multimodal publication scheme

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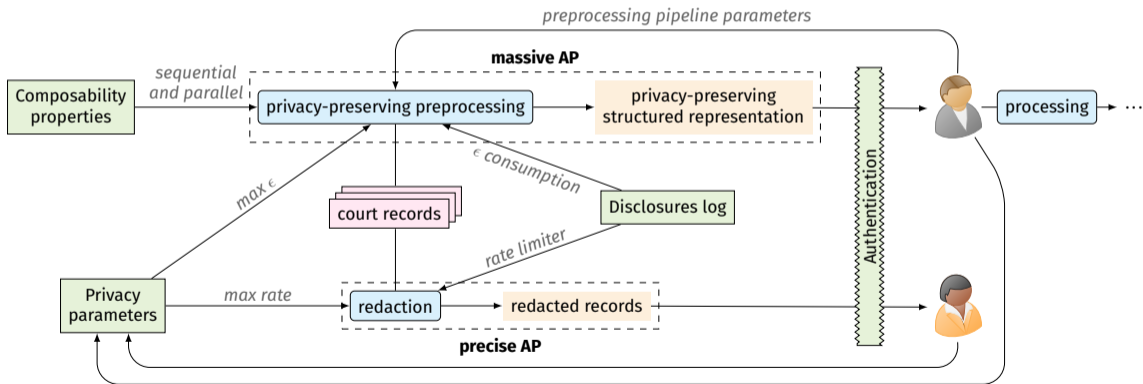
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Towards a multimodal publication scheme

👉 Reconcile privacy with transparency by distinguishing two needs:

- “Precise” access
- “Massive” access



Conclusion

- ✍ Rule-based redaction: no privacy guarantee
- ✍ Text anonymization is hard:
state-of-the-art privacy mechanisms require aggregation
- 👉 Discarding the one-size-fits-all approach allows for transparency and privacy
- R&D challenges to overcome in order to implement this vision
- Required for privacy preserving massive publication

✉ louis.beziaud@irisa.fr

Bibliographie I

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- [2] Andrew Duffy. “Google is linking secret, court-protected names including victim IDs to online coverage”. In: *Ottawa Citizen* (2017).
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- [4] Natasha Fernandes, Mark Dras, and Annabelle McIver. “Generalised Differential Privacy for Text Document Processing”. In: *POST*. 2019.
- [5] Caroline Fleuriot. “Avec l'accès gratuit à toute la jurisprudence, des magistrats réclament l'anonymat”. In: *Dalloz Actualité* (Feb. 2017).
- [6] Jean-Baptiste Jacquin. “Terrorisme : la peur des magistrats”. In: *Le Monde* (Jan. 2017).
- [7] LawGeex. *Legal Tech Buyer's Guide*. 2019.
- [8] Marc Opijnen et al. *On-line publication of court decisions in the EU*. 2017.
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