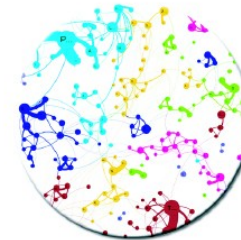




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Utilisation de modèles de langue pour la détection automatique d'expressions torturées

Alexandre Clausse, Guillaume Cabanac, Pascal Cuxac, Ophélie Fraisier-Vannier, Cyril Labbé, Martin Lentschat, Tristan Salord

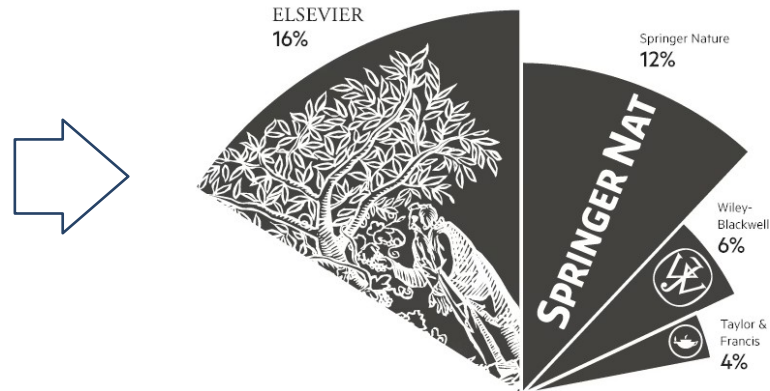


Publier ou périr

(Biagioli et al., 2020 ; Cabanac et al., 2021 ; Cabanac et al., 2022 ; Van Noorden, 2023 ; Abalkina et al., 2025)



Elsevier top of the league
Global market share of journal articles by leading publishers, 2013 (%)



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voice recognition

deep neural network

Convolutional Neural Network. Artificial Neural Networks with numerous layers are termed as Deep Neural Networks or Deep Learning. It has been explored as one another key resource in recent years and has become quite well recognized in the literary community because of its efficiency to manage with huge amounts of data [17]. The most well-known **profound neural network** is the Convolutional Neural Networks (CNNs), which takes its name from operation of mathematical dimension from the matrixes termed convolution. Convolutional Neural Network (CNN) has various types of layers; it includes pooling, nonlinearity, and convolutional and fully connected layers. Convolutional Neural Network has pivotal outcomes over previous decades in an assortment of fields identified with **design** **acknowledgment** from **picture handling** to **voice acknowledgment** [8]. The significant part of CNN is to get theoretical highlights when information proliferates towards the more **profound layers**. For instance, in picture characterization, the edge may be distinguished in the principal layers, and afterward the less difficult shapes in the subsequent layers, and afterward the **highlights**.

image processing *

pattern recognition *

deep layers

high-level features *



Publier ou périr

spectral local linearization method



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Spectral methods to solve nonlinear problems: A ... - Rai - Cited by 27



The spectral local linearization method. The **uneearthly neighborhood linearization technique (SLLM)** can be used to unravel an arrangement of the non-comparable conditions. Within this method the criteria for logarithmic criteria are linearized using thoughts similar to the Gauss–Seidel approach.



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Spectral methods to solve nonlinear problems: A review

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<https://web.archive.org/web/20240521113315/https://www.google.com/search?client=firefox-b-d&q=spectral+local+linearization+method#ip=1> (21 mai 2024)

Modélisation par masquage

(Gehrmann et al., 2019 ; Martel et al., 2024 ; Clausse, 2025)



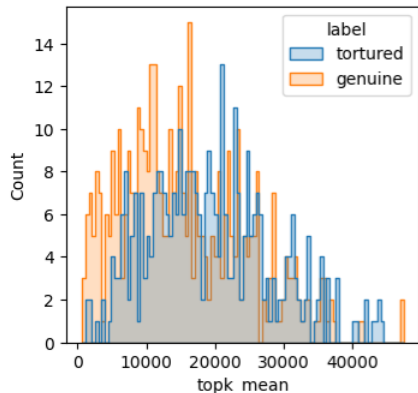
130 paires
de phrases

Attendu – Probable – Exceptionnel – Inattendu

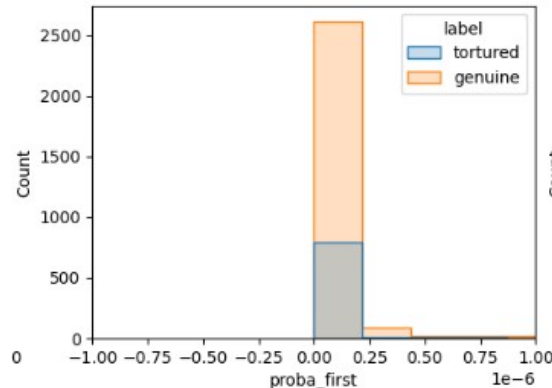
Convolutional Neural Network has pivotal outcomes over previous decades in as assortment of fields identified with design acknowledgment from picture handling to voice acknowledgment

Convolutional Neural Network has pivotal outcomes over previous decades in as assortment of fields identified with pattern recognition, from image processing to voice recognition.

Configuration : LongFormer
Agrégation par moyenne des rangs
d'apparition des groupe nominaux



Configuration : LongFormer
Agrégation par moyenne des probabilités
d'apparition des tokens



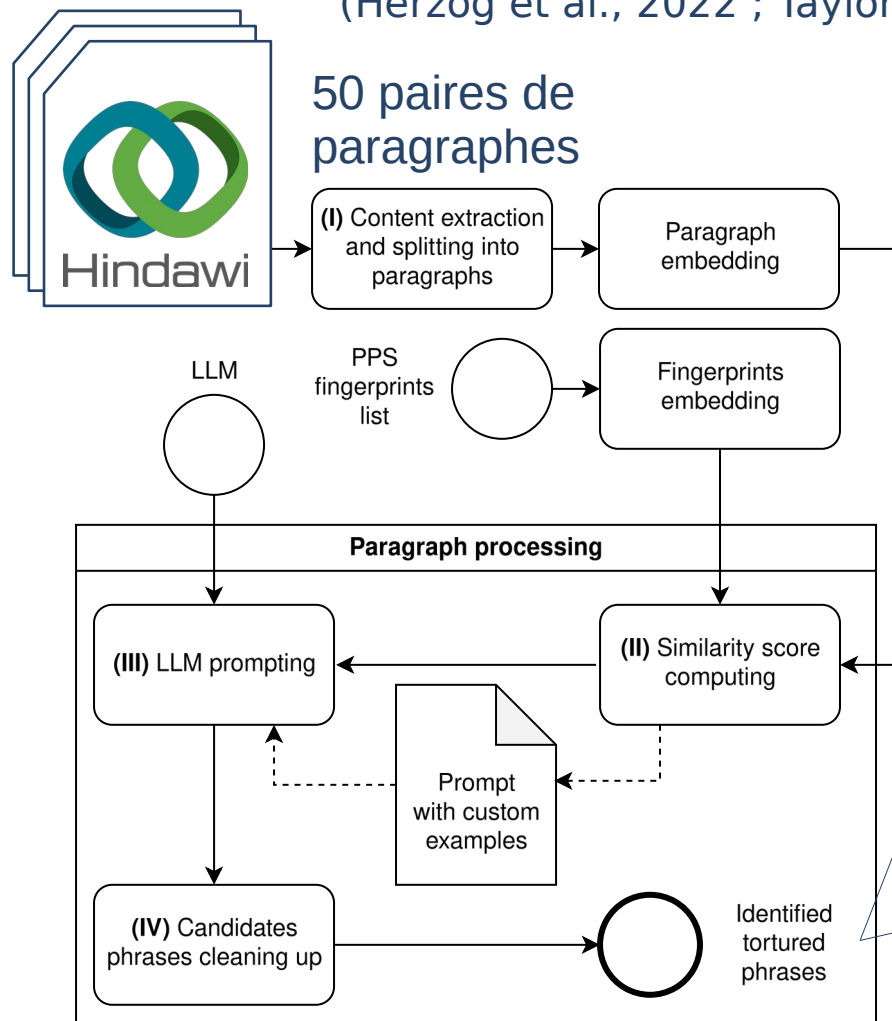
320 configurations :

- 8 modèles de langue
- 10 fonctions d'agrégation
- Par token / groupe nominaux
- Par probabilité / rang d'apparition

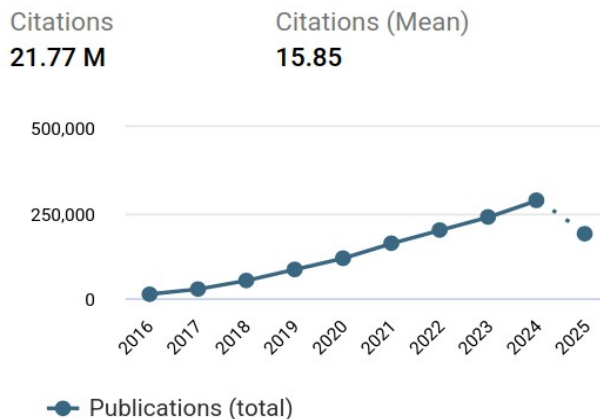
inforSID 2025

Interprétation par des LLMs

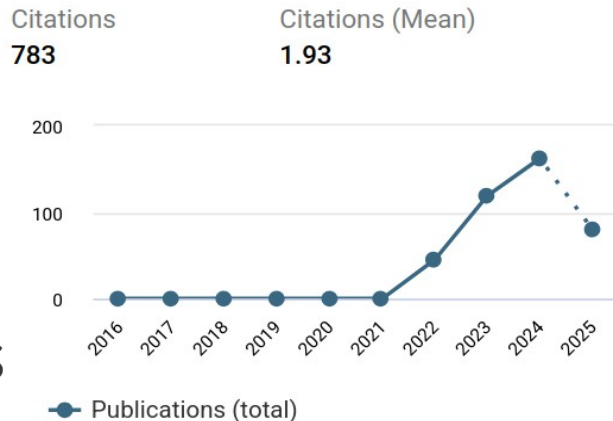
(Herzog et al., 2022 ; Taylor et al., 2022 ; Li et al., 2024)



« Convolutional neural network »



« Convolutional brain organization »





Bibliographie

- (Gehrmann et al., 2019) Sebastian Gehrmann, Hendrick Strobelt, and Alexander M. Rush. 2019. *GLTR: Statistical Detection and Visualization of Generated Text*. Prépublication ArXiv. URL : arxiv.org/abs/1906.04043
- (Biagioli et al., 2020) Mario Biagioli and Alexandre Lippman. 2020. *Gaming the Metrics – Misconduct and Manipulation in Academic Research*. MIT Press. URL : mitpress.mit.edu/9780262537933/gaming-the-metrics/
- (Cabanac et al., 2021) Guillaume Cabanac, Cyril Labbé, and Alexander Magazinov. 2021. *Tortured phrases: A dubious writing style emerging in Science. Evidence of critical issues affecting established journals*. Prépublication ArXiv. URL : arxiv.org/abs/2107.06751
- (Cabanac et al., 2022) Guillaume Cabanac, Cyril Labbé, and Alexandre Magazinov. 2022. *The ‘Problematic Paper Screener’ automatically selects suspect publications for post-publication (re)assessment*. Prépublication arXiv. URL : arxiv.org/abs/2210.04895
- (Herzog et al., 2022) Christian Herzog, Daniel Hook, Stacy Konkiel. 2022. *Dimensions: Bringing down barriers between scientometrics and data*. QSS, 1, MIT press, pp. 387-395. DOI : doi.org/10.1162/qss_a_00020
- (Taylor et al., 2022) Ross Taylor, Marcin Kandas, Guillem Cucurull, Thomas Scialom, Anthony Hartshorn, Elvis Saravia, Andrew Poulton, Viktor Kerkez, Robert Stojnic. 2022. *Galactica: A Large Language Model for Science*. Prépublication arXiv. URL : arxiv.org/abs/2211.09085
- (Van Noorden, 2023) Richard Van Noorden. 2023. *How big is science’s fake-paper problem?* Nature, 623, Springer-Nature, pp. 466-467. DOI : [10.1038/d41586-023-03464-x](https://doi.org/10.1038/d41586-023-03464-x)
- (Li et al., 2024) Sihang Li, Jin Huang, Jiaxi Zhuang, Yaorui Shi, Xiaochen Cai, Mingjun Xu, Xiang Wang, Linfeng Zhang, Guolin Ke, Hengxing Cai. *SciLitLLM: How to Adapt LLMs for Scientific Literature Understanding*. Prépublication arXiv. URL : arxiv.org/abs/2408.15545
- (Martel et al., 2024) Eléna Martel, Martin Lentschat, and Cyril Labbé. 2024. *Detection of tortured phrases in scientific literature*. Prépublication Arxiv. URL : arxiv.org/abs/2402.03370
- (Clausse et al., 2025) Alexandre Clausse. 2025. *Prédiction d’expressions torturées dans des articles scientifiques : modélisation par masquage*. Forum JCJC du congrès INFORSID. URL : hal.science/hal-05108319v1