

### Al & In-House

Integrating NLP and Language Models into corporate legal workflows

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Paris, 16 May 2023











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### **Introduction to Natural Language Processing**

- a) NLP and Language Models
- b) Technology's Growing Importance in the Legal Sector
- c) Benefits of NLP and Language Models for In-House Counsels







### I. Introduction to Natural Language Processing

a) NLP and Language Models



Natural Language Processing (NLP) as a sector of AI focused on enabling computers to understand, interpret, and generate human language.



Language models as an NLP branch aimed to predict and generate coherent text sequences based on input.



ChatGPT as a prominent language model that has significantly advanced NLP technologies.



- I. Introduction to Natural Language Processing
- b) Technology's Growing Importance in the Legal Sector

Need for efficiency, cost reduction, and accuracy in legal practice.

Technology's role in meeting challenging demands through e-discovery, document automation, and legal research tools.

Competitive advantage for in-house teams which adopt technological advancements in their practice.



- I. Introduction to Natural Language Processing
- c) Benefits of NLP and Language Models for In-House Counsels



NLP potential to streamline legal tasks such as contract review, legal research, and document drafting.



Improving accuracy and reducing human errors in legal work using NLP and language models.



Automation of tasks can free up in-house counsels' time, leading to better decision-making and client outcomes.







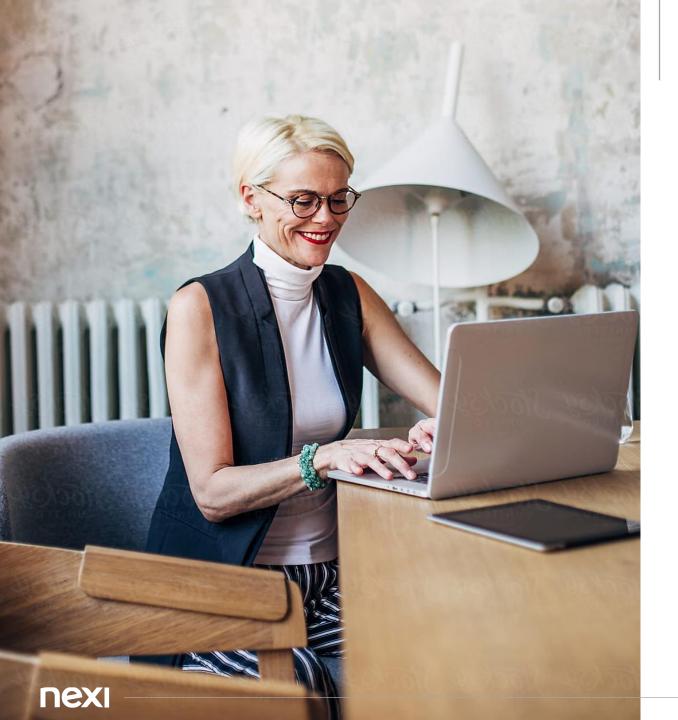
### II.

### **Understanding NLP and Language Models**

- a) What is Natural Language Processing (NLP)?
- b) Overview of Language Models
- c) Key Advancements in NLP Development: ChatGPT







### II. Understanding NLP and Language Models

a) What is Natural Language Processing (NLP)?



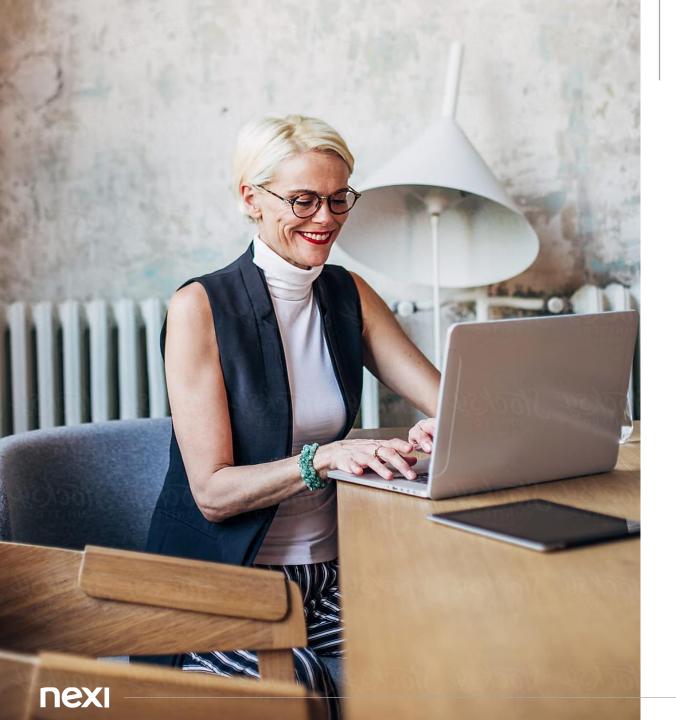
NLP as a subfield of AI focusing on the interaction between computers and human language.



The main goal of NLP: enabling computers to understand, interpret, and generate human language meaningfully and contextually accurate.



Overview of NLP techniques and their application.



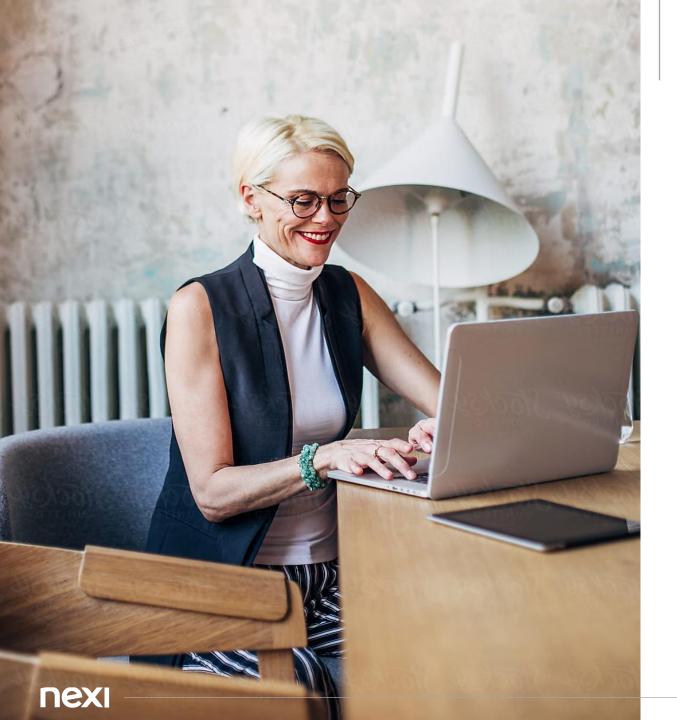
### II. Understanding NLP and Language Models

b) NLP and Language Models

Natural Language Processing (NLP) evolution, enabling computers to understand, interpret, and generate human language.

Language models as an NLP branch aimed to predict and generate coherent text sequences based on input.

GPT as a prominent language model that has significantly advanced NLP technologies.



II. Understanding NLP and Language Models

c) Key Advancements in NLP Development: ChatGPT

Evolution of NLP techniques from rule-based systems to machine learning and deep learning approaches

Impact of advancements like neural networks, attention mechanisms, and transfer learning on developing more sophisticated language models.

ChatGPT as the result of training models with large-scale datasets and massive computational power







# III. Applications of NLP and Language Models for In-House Counsels

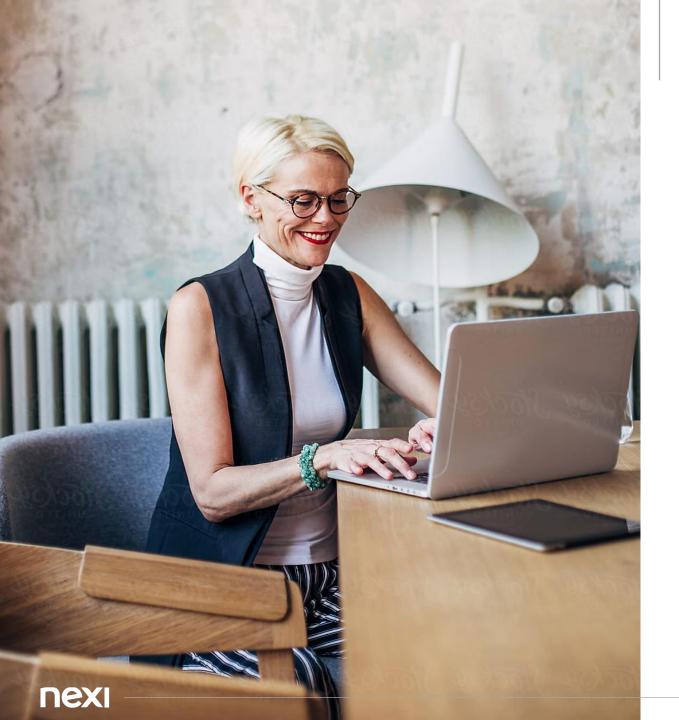
Automating contract review and drafting processes

Legal Research and Knowledge Management

Data review and analysis







## 3. Applications of NLP and Language Models for In-House Counsels



Some use cases: Automating contract review and drafting processes; Legal Research and Knowledge Management; Data review and analysis...



High flexibility and customization possibilities at relatively low cost



**Commercial vs. In-House development** 







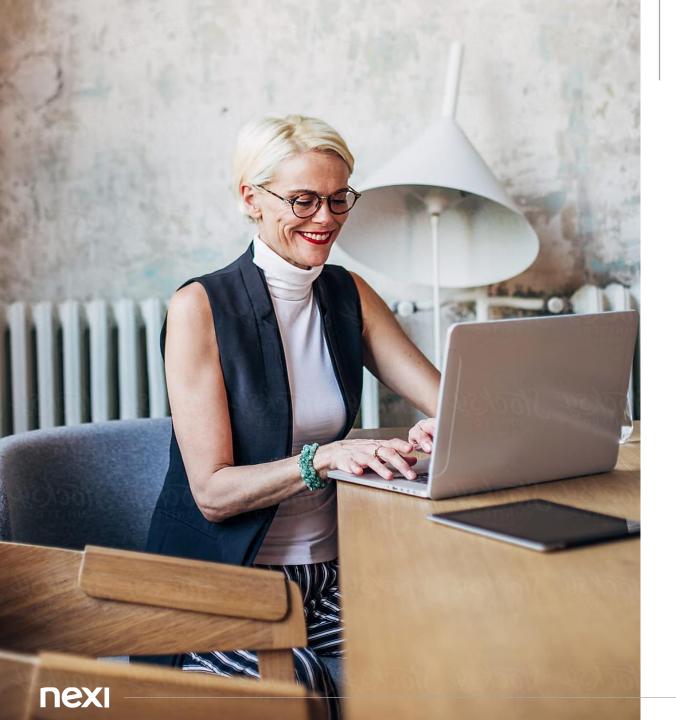
IV.

### **Challenges and Limitations**

- a) Legal and ethical challenges and mismanagement of AI tools
- b) GDPR & Italian Privacy Authority case







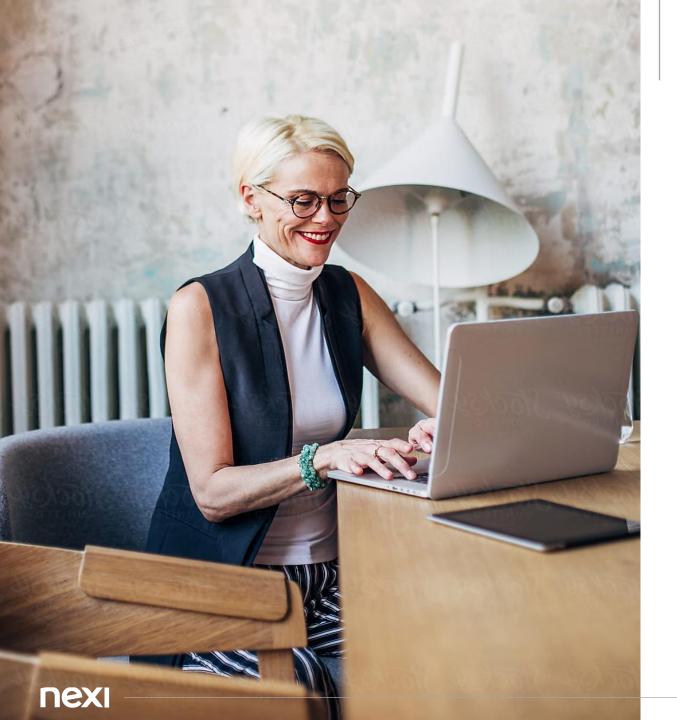
IV. Challenges and Limitations

a) Legal and ethical challenges

Training Language Models with user data: confidentiality and privacy issues

Addressing biases contained in training data

Risk of over-confidence and mismanagement of Language Models



IV. Challenges and Limitations

b) GDPR and Italian Privacy Authority Case

**ChatGPT inhibited for Italian Users** 

Requirements imposed by Italian "Garante"

Towards an European way to regulate Language Models







#### V.

### The Future of Legal Practice with NLP

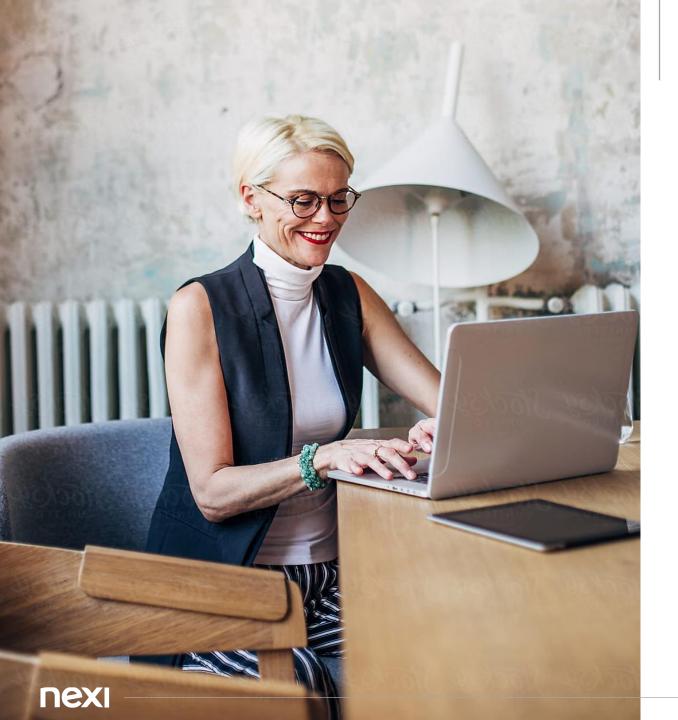
a) Ongoing Developments of NLP and Language Models

b) New Potential Applications for In-House Counsels

c) Evolving Role of In-House Counsels in a Technology-Driven Legal Landscape







### V. The Future of Legal Practice with NLP

a) Ongoing Developments of NLP and Language Models



Continuous improvement of language models widening usability for practical use cases



Better capabilities at a lower cost



Hype leading to increased chances for budget allocation



### V. The Future of Legal Practice with NLP

### b) New Potential Applications for In-House Counsels



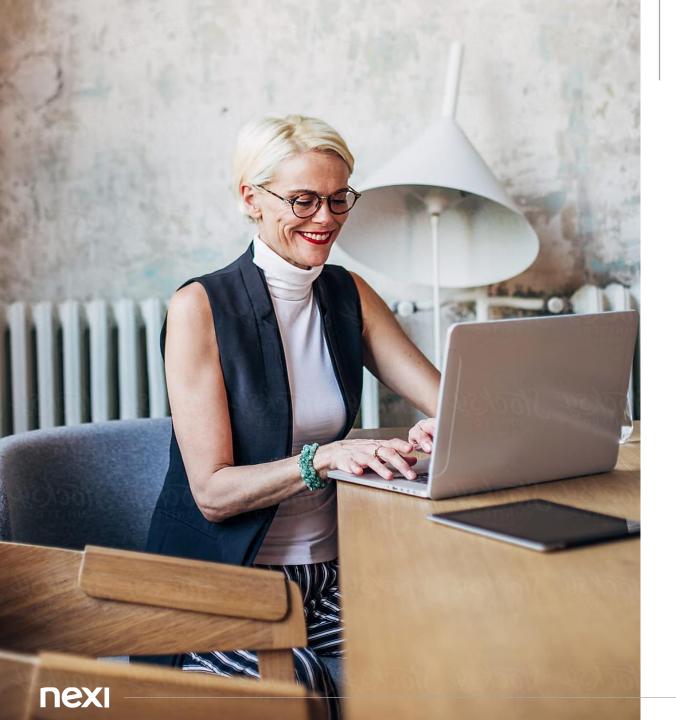
Structured integration of AI solutions into legal workflows



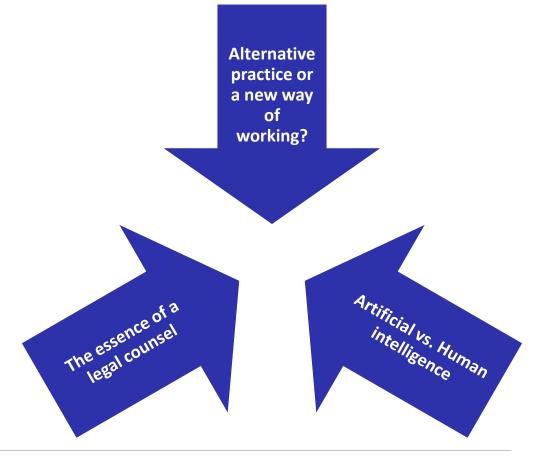
Tailored fine tuned language models to maximize consistency and accuracy



Developing of new use cases (AI assisted negotiations/dispute resolutions, legal chatbots, assisted drafting...)



- V. The Future of Legal Practice with NLP
- c) Evolving Role of In-House Counsels in a Technology-Driven Legal Landscape









VI.

### **Conclusion**



Call to Action



THANK YOU!!!



Q&A





Q&A







Operations. Legal Innovation. Technology.







