

# Lung Cancer Classification using Computerized Tomography (CT) Data

## Ethical and Legal Considerations

### Ethical Considerations

The concept of data ethics involves a deep dive into the necessity for ethical regulations when it comes to collecting and using data. This area of study covers principles like safeguarding privacy, preventing individual or group discrimination, and preserving the freedom of choice.

When we deal with medical data, especially medical images, it is essential to always keep in mind that these types of data should be handled with the utmost care to protect patients' privacy and comply with the General Data Protection Regulation (GDPR).

The GDPR, a European legal regulation established in 2018, is all about upholding privacy, protecting personal data, and managing the export of this data outside the EU and EEA. It is applicable to all individuals in the European Union and the European Economic Area and is built on key concepts, including the right to transparency, the right to information, the right to access, the right to be forgotten, the right to restrict data processing, the right to notification, the right to data portability, and the right to object.

### Legal Considerations

The high interest shown by major corporations in acquiring healthcare system databases is poised to introduce new challenges concerning patient privacy protection. Simultaneously, it will increasingly raise ethical concerns due to commercial interests. As previously mentioned, in this endeavor, we will be dealing with medical data, and as such, several legal aspects must be taken into account by both companies and individuals to ensure patient privacy and to avoid legal complications.

When working with medical data, there are various legal aspects and regulations that individuals and organizations should consider to ensure compliance, protect patient privacy, and avoid legal entanglements. Some of the key legal aspects to be mindful of include:

- Basic medical negligence laws: The use of AI and technology in healthcare can raise legal questions about liability for medical negligence. Understanding the implications of these laws is crucial.
- Third-party contracts: If you are utilizing third-party vendors or service providers to handle medical data, make sure there are appropriate data processing agreements and contracts in place to define responsibilities and data protection requirements.
- Intellectual property: Address any intellectual property issues, especially if you are using third-party software or libraries, and ensure compliance with licensing agreements.
- Liability: Discuss potential liability issues related to model predictions and how they are addressed, especially in a medical context.