Docket #: S19-041

Using Supervised and Unsupervised Learning to Infer Diagnostic Codes on Veterinary Clinical Text

This software tool takes clinical notes from veterinary electronic medical records and assigns SNOMED-CT VET extension diagnostic codes based on the content written on the notes. Veterinary electronic medical records often have a detailed description of the symptoms, diagnoses, and plans of treatment, but there is no standardized description for these notes. This software addresses an important challenge in veterinary medicine, using supervised and unsupervised learning to assign 4577 disease diagnoses with high performance, an improvement over previous software's performance by 42%.

Applications

- - Assigning standardized (SNOMED-CT VET) codes to raw veterinary clinical text
- - Enable large-scale cohort selection based on electronic medical records in veterinary medicine
- - Enable cross-species studies on companion animals
- - Zoonotic disease surveillance

Advantages

- - Ability to apply the software to decades of veterinary medical records without human coders
- - Automatically suggest diagnostic codes for veterinary practitioners

Innovators

- Aiming Nie
- Yuhui Zhang
- James Zou
- Ashley Zehnder

Licensing Contact

Imelda Oropeza

Senior Licensing Manager, Physical Sciences

Email