

Is Neurosurgery a Creative Work? (and why do we care?)

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Who am I?

Associate Professor in Viterbi School of Engineering at USC.

Research:

- Reliability and Reproducibility in Data Science.
- Intersection of Intellectual Property Law and Open Science (sharing and re-using digital research artifacts).

Education:

Ph.D. in Statistics (Stanford).

Master's in Legal Studies (Stanford Law School).

Agenda

1. Digitization of surgical practices
2. Who owns surgical video?
3. Background: Copyright
4. AMA and other guidance
5. Gaps, pitfalls, opportunities: A Provocation

1. Digitization of Surgical Practice

- Surgery routinely leverages imaging devices e.g. **exoscopes** (imaging devices remain outside the body) and **endoscopes** (imaging devices placed inside the body).
- Surgeons are able to capture video for personal recordkeeping, research, teaching and quality improvement purposes, etc.
- Selections of the video are chosen for preservation, and the surgeon may have used contrast dyes or specialized light filters to enhance feature detection.

2. Isn't that video useful?

Yes:

- Educational purposes
- Malpractice defense
- Patient records
- Inference on surgical practices
- ...

So who owns it anyway?

- Surgeon? Hospital? Patient? Device manufacturer? Software developer? Repository holder? Or some other rights holder??
Research funder? Insurance?



3. Intellectual Property Background: Copyright

“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. Const. art. I, §8, cl. 8

Original expression of ideas falls under copyright by default (text, video, code, figures, tables..)

Copyright secures exclusive rights vested in the author to: 1) reproduce the work; 2) prepare derivative works based upon the original.

Limited time: generally life of the author +70 years
Exceptions and Limitations: e.g. Fair Use.

Separate legal considerations:

- Wiretap laws e.g. audio recording without permission
- Stipulations in employment contracts
- HIPAA and privacy concerns

4. AMA Guidance

The American Medical Association's Code of Medical Ethics on *Audio or Visual Recording Patients for Education in Health Care* (Opinion 3.1.3):

- Encourages the use of audio and visual recording of patients for health care education.
- Provides a checklist to help ensure that patient interests are safeguarded.
- No guidance on ownership of audio and video recordings.

5. So..

- As a creative work, surgical video would be subject to copyright (surgeon akin to creator)
- Consent for audio recording
- Patient protection / anonymity



The Anatomy Lesson of Dr. Nicolaes Tulp,
Rembrandt van Rijn, 1632

Provocation: Medical recordings can be a foundation for research and advancing state of the art practices. As a community we can safely permission this.