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# Augmented and Virtual Reality's potential in health sector

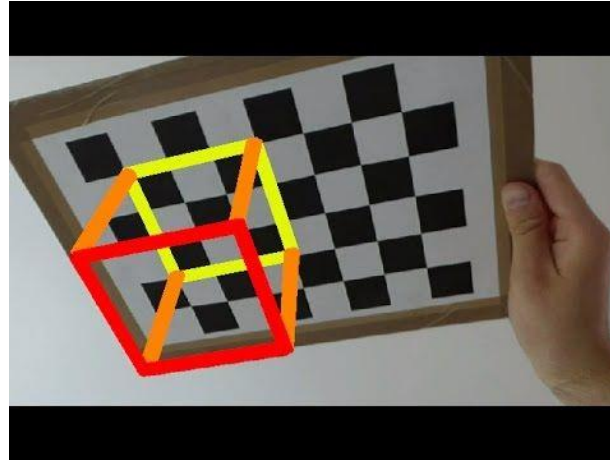
Xinyu Fu

# Introduction

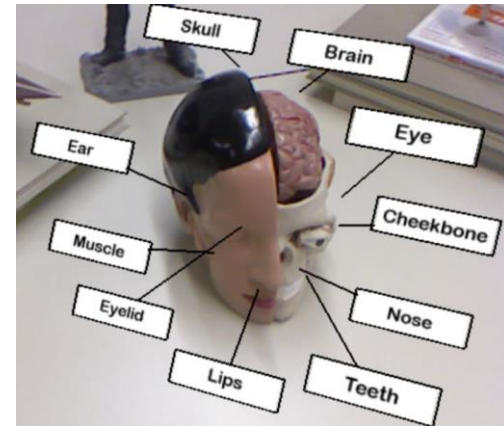
- AR and VR take an important role in many medical applications.
- AR and VR denote a technique to combine a real world and virtual objects which are artificially generated digital content by a computer

# Technical approaches

✓ Camera Calibration



✓ Patient Registration



✓ Object Tracking

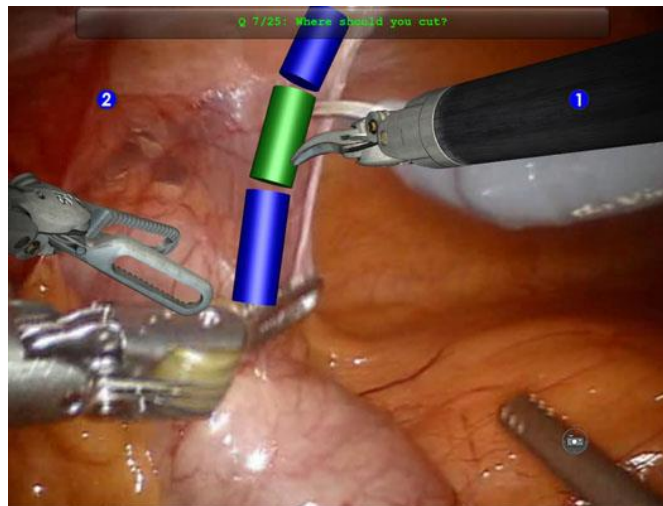
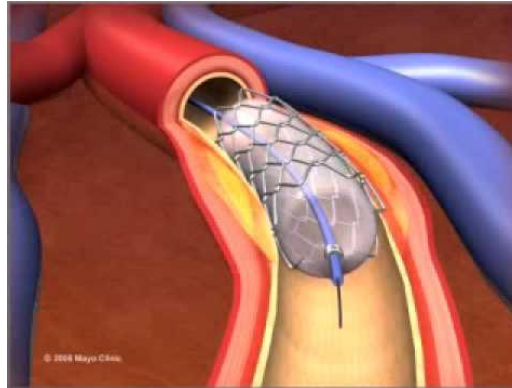


Figure. Screenshot of technical question during augmented reality simulation with overlaid virtual instruments

# Applications

✓ **Cardiac Intervention**



✓ **Surgery with AR**

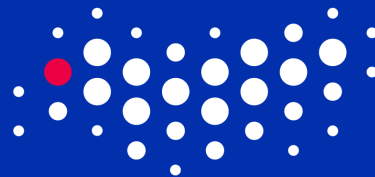


✓ **Surgery with VR**



# Conclusions

- ✓ Help real surgery as assistant especially in microsurgery and nanosurgery.
- ✓ visualize the region of interest, such as tumors, blood vessels, and nerves
- ✓ I believe both AR and VR will only become more common and populated in future medicine.



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# Спасибо за внимание!

Ваши контакты (персональные)

Название города, год