

Objectives



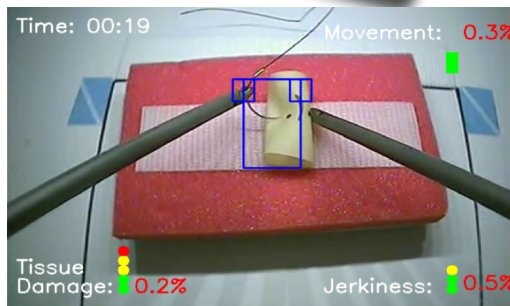
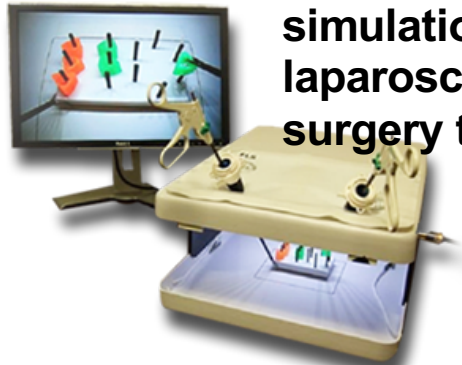
Illustrate specific machine
learning examples



Describe broad machine
learning applications

A few examples of machine learning (1/3)

**Learning to assess
skills in
simulation-based
laparoscopic
surgery training**

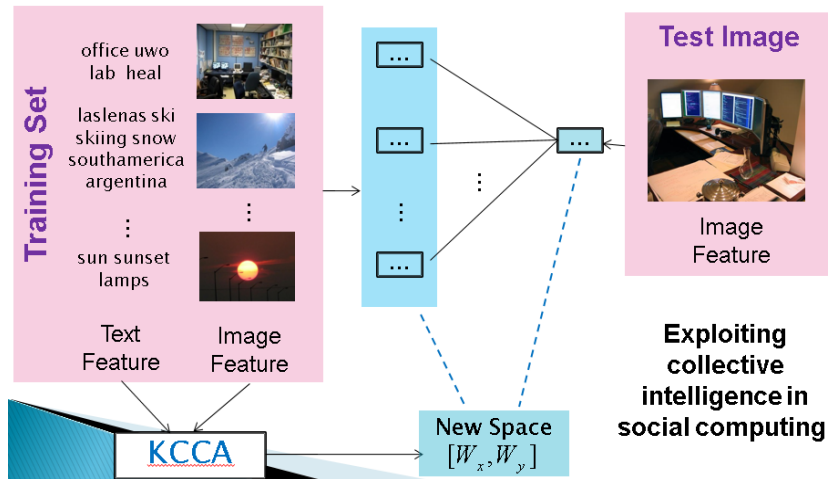


I have a hypothetical question

Best answer: Nope. He can say 'i

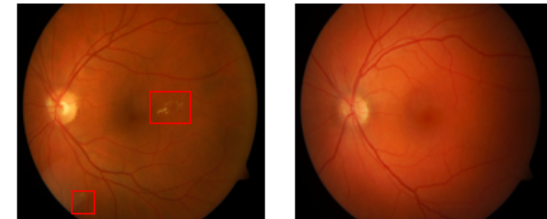
**Learning to predict
best answers in
community Q & A**

A few examples of machine learning (2/3)



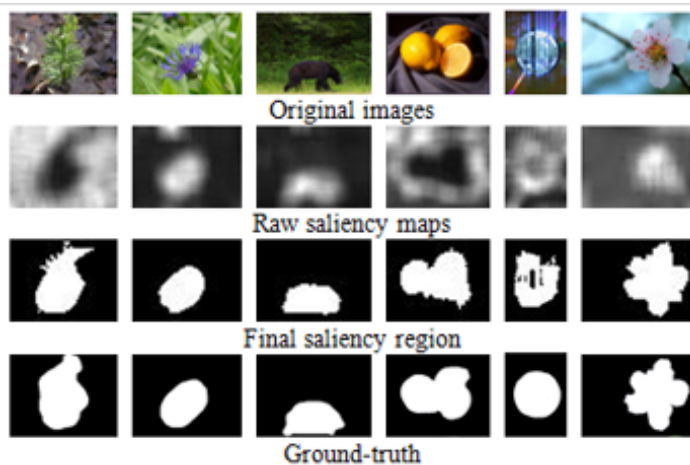
Tag prediction/recommendation

Diabetic retinopathy detection

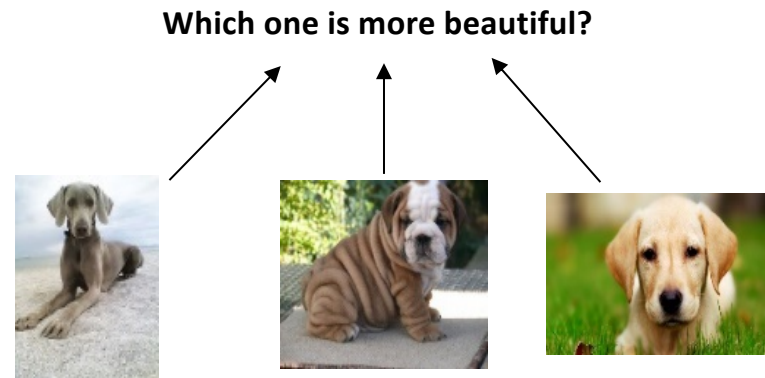


A few examples of machine learning (3/3)

Visual saliency detection



Computational visual aesthetics



Broad Applications of Machine Learning



| Computer vision

| Speech recognition; natural language processing

| Medical informatics

| Robotics

| Computational biology

| Information technology

| Finance

Information Technology



- | Spam detection
- | Web image search
- | Recommendation
- | Information filtering
- | Community detection
- | Adaptive advertisement
- | Sentiment analysis

Finance



- | Credit risk assessment
- | Fraud detection
- | Stock market prediction
- | Algorithmic trading
- | Return forecasting