Research In Context

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Good Citizen of CVPR Workshop 2018
What context?

• Fact: We do research to understand images automatically.

• Context: Where does the average person see images most frequently?
  • Likely in the media

• Context: Who cares about this research?
  • Impact of persuasive images on society
  • Outreach and education

• Context: Who does this research?
  • Fostering and mentoring students
  • Research with undergrads
Persuasive images

• Images don’t just passively live in our datasets or our phones

• They can be active participants and cause change
  • A photograph changed public perception of AIDS
  • A video prompted a change in NFL’s domestic violence policy
  • A series of photos prompted President Carter to grant asylum to 200,000 refugees
  • “The general killed the Viet Cong; I killed the general with my camera.” (Eddie Adams)
Persuasive images

• Images don’t just passively live in our datasets or our phones

• They can be active participants and cause change
  • Ads helped 100,000 people quit smoking
  • Nike sales went from $0.8bil (1988) to $9.2bil (1998)

• Absolut’s share of the US vodka market went from 2.5% to about 25%

• De Beers built the diamond ring industry

• Old Spice’s campaign gained 11 million views and 29,000 Facebook fans
Persuasive images

• We want to understand what ads tell us to do, and what rationale they provide for doing so
• First step to understanding what makes ads effective
• But this is challenging for many ads

• To enable progress, we developed a large richly annotated dataset: http://cs.pitt.edu/~kovashka/ads
Decoding image advertisements

• State-of-the-art vision systems are inadequate to describe the messages hidden behind purposefully designed advertisements.

Predictions from Clarifai and Vinyals et al.
Others working on understanding persuasion

• Jungseock Joo (UCLA)
• Jiebo Luo (University of Rochester)
• Shih-Fu Chang (Columbia University)
Computer vision with a cause (one example)

“VizWiz Grand Challenge: Answering Visual Questions from Blind People”, Gurari et al., CVPR 2018
Education and outreach

• Organizing workshops for the community
  **Calling all students:**
  • It’s not that hard to do and it’s fun
  • It’s a good networking opportunity
  • It’s service to the community

• Outreach beyond our community
  **Women in Computer Vision Workshop**
  Olga Russakovsky and Fei-Fei Li’s AI4ALL Foundation
Fostering and mentoring students

• Doctoral Consortium
  • Merit-based mentoring event for senior PhD students
  • Lunch, one-on-one meetings with mentors in academy or industry, panel discussion
  • Financial support by NSF/industry

• Working with undergraduates
  • First experience was bad, so I decided to never do it again
  • Then I had a baby, had some time to think of concrete ideas, and agreed to work with three undergraduates
  • They were all absolutely amazing
Fostering and mentoring students

• Teaching undergraduates computer vision
  • The first time, I only connected with the good students
  • The third time, we were all cracking jokes every class
  • Many students were genuinely intrigued; excitement was visible and unrestrained
  • The key was assuming the students were right and reasonable every time; which they were, unlike before
  • *Good will breeds good will*
  • Undergrads often have an interesting perspective
My “How to be a good citizen of CVPR”

• Think about why our research matters
• Think about its impact on society
• Share datasets and involve community in your work
• Reach out to groups outside the community whose involvement and perspective we could benefit from
• Help foster graduate and undergraduate students
• Involve undergraduates in research and get them excited, they have a lot to contribute!