

IMAGE AND VIDEO ANALYSIS: TRENDS AND CHALLENGES

PANEL STATEMENT

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ABSTRACT

In this statement I will very briefly describe my ideas concerning the research trends in video and image analysis.

1. STATEMENT

Where is video and image analysis going?

I believe the following areas will be important in the next 10 years:

- **Medical Imaging** – As the population in the developed world ages there will be more demand for medical services. We may be actually in a situation where we will have fewer physicians to handle more people. Image analysis will play a role as a “multiplier.” Similarly in the developing world medical image analysis will also play an important role since technology may be cheaper than trained professionals.
- **Ubiquitous Cameras** – with the fall in the price of high-resolution CMOS imaging sensors, we will see cameras everywhere. Not only will we have cameras in our mobile telephones but also we will see them in our cars, homes, laptops, and PDAs. Many of these devices will be networked and capable of sending the images or video anywhere on the Internet. These imaging devices will be capable of forming ad hoc networks with other devices and sensors in their environment. Some applications will be typical “fun” uses of the camera, e.g. pictures of our friends and family. However we will see an explosion in the use of these cameras for security applications.

The question is how are we going to store, secure, and analyze this content? What are the implications for our society in having cameras everywhere?

- **Biometrics** – In the very near future we will need robust methods to authenticate ourselves. Traditional approaches such as photo passports will not be enough. Image and video analysis will play an important role in developing new metrics that can be used to identify a person. The larger issues of who should have access to these metrics must also be addressed.
- **Entertainment** – We have heard in many of these panels how analysis tools would help in the area of entertainment. I never believed this was going to happen and I am still very skeptical. While some analysis tools may help content providers, I just do not see how analysis will help content consumers.

I hope by the time you read this we had a very lively and thought provoking panel!

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