

# Scientific presentation

say something funny about the importance of scientific presentations

Sure! Here's one:

"Scientific presentations are crucial — because if you don't explain your research clearly, your audience will think your groundbreaking discovery is either a typo... or a recipe."

Want me to come up with a few more one-liners you could actually use in class?

📄 👍 🔄 ⬆️ ⌛ ...

could you say something funnier and maybe sarcastic?

Got it — here's a sharper, sarcastic take:

"Scientific presentations are important. After all, what's the point of spending three years on research if you can't summarize it in 10 minutes of PowerPoint slides with fonts no one can read?"

Want me to cook up a handful of these so you've got options for different moods in class?

# Outline for today

- Practicalities (schedule, activities, groups, reading tasks, robots)
- Recap of previous class
- Activity
- Scientific conferences
- Activity
- Oral presentations
- Activity
- Slide presentations
- Chat about project ideas, forming groups

# Course outline

- **Literature**

- W36 Literature search
- ○ W37 Scientific presentation

- **Experimental design**

- W38 Hypothesis and evidence
- W39 Basic and comparative statistics
- W40 Experimental design

- **Dissemination**

- W41 Paper writing and avoiding plagiarism
- W43 Repeatable research using R - Henrik

- **Guest lectures**

- W44 Ethics, patents, etc.

- **Conference**

- W47 Presentation of your projects

- **Finalization**

- W48 Project reports due

# Preliminary course schedule

Week	Date	Topic
W36	Sept 3	Intro to SciMet, Literature Search
W37	Sept 10	No class
W38	Sept 17	Scientific presentation
W39	Sept 24	Hypothesis and experimentation
W40	Oct 1	Basic and comparative statistics
W41	Oct 8	Experimental design
W42	Oct 16	Autumn break
W43	Oct 22	Paper writing and avoiding plagiarism
W44	Oct 29	Repeatable research using R - Henrik Skov Midtiby
W45	Nov 5	Patents, ethics, AI Guest presentation
W46	Nov 12	No classes – project work - consultations
W47	Nov 19	No classes – project work - consultations
W48	Nov 26	Conference (project presentations)
W49	Dec 4	Final project papers due

# Mandatory requirements

- Completion of all 3 is the condition of attending the exam
  - Weekly reading tasks
    - Each week groups get reading tasks
    - Next week they report on it in the form of a 10min slide presentation
    - Discussion
  - Project in R on analyzing and reporting results
    - Henrik Skov Midtiby
  - Scientific Project – **accounts for 50% of grade**
    - Plan, design, conduct, analyze, report on a scientific project
    - Must be robotics related
    - Write a 4-page paper about it
    - Present it at internal conference



<https://www.wildlifeforensicscience.org/product/r/>

# Course description - exam

## ▼ Description

Exam conditions

Mandatory assignments

Exam

Combination of Portfolio and written exam (MCQ incl. clear text answers) both at the end of the semester. Each part counts 50% in the final assessment.

- Mandatory assignments prerequisite for attending the exam
- Portfolio carries 50% of grade – which is the report about the completed course project
- Written exam carries 50% of grade
- Must score above 50% to pass exam

# Publication possibility

- Submissions to Human Robot Interaction conference Late-Breaking Reports
- Close collaboration on topic, some extra work => publication => looking good on CV 😊
- Let me know early about your project ideas

# Course groups

Group number	Member 1	Member 2	Member 3	Member 4
1	Anders Møller Jensen	Lauge de Place	Mads Elkjær Larsen	Felix Benkjer
2	Margot Tahtaci	Madlen Fauvel	Bos Justin	
3	Rikke Boysen	Simone Lebech	Jacob Larsen	
4	Kristian Knudsen	Søren Væde	Josefine Andersen	
5	Tobias Ottsen	Salem Rezaie	Ronan Machado	Dragos Andrei Petrut
6	Asge N Andersen	Andres Skeem	Kasper Mathisen	Jacob Zibrandtsen
7				
8	Danie Holm Knudsen	Valdemar Lange	Mads Thede	
9				
10	Aviv Tokman	Nikolaj Kirchhübel Andersen		
11				
12	Harald	Aksel	Yosef	Christian
13	Andras Tamas Nagy	Georgios Iliopoulos	Martin Sinka	
14	Thomas Korsgaard Vilholm	Ashvath subramaniam		
15	Panagiotis Nikolaidis	Andrés De Pool Alcántara	Iñigo Lacabe Vicuña	Mehmet Baha Dursun
16	Smrithi Narayanan	Vera Kenderessy	Marija Gabarashvili	Zoi Karagiannidou
17				
	<u>Look-up Table:</u>			
	UAS	Advanced Robotics	add your field	
	Materials	Computer Science	Electrical Engineering	



# Reading task due by Sept 24th

- Everyone should read
- Groups x, y, z will report on it
- Paper: Robust Autonomous Navigation of Unmanned Aerial Vehicles (UAVs) for Warehouses' Inventory Application
- Deliverable: a couple of slides about the paper (PDF)
  - Authors, citations
  - Where was it published, impact factor?
  - Problems, hypotheses, approach, testing?
  - What did you like and dislike about the paper?
- To be uploaded to itslearning (more info in an upcoming announcement)
- Deadline start of next class (Sept 24th, 12:15)
- One group will be selected at random for presenting their slides at next class
- All group members should present (if you can't, inform me before the class)

# Which robot will you use?

- HuGo Humanoid
- Dash & Dot
- Kubo
- Sanbot penguin
- Lego Mindstorms
- UR5
- MIR250
- RIMEPHAS
- HospiBot mobile base
- Capra
- Driving simulator
- Beam telepresence



HuGo Humanoid Robot



Beam



Capra



Lego Mindstorms



Dash & Dot



MIR250



Sanbot penguin



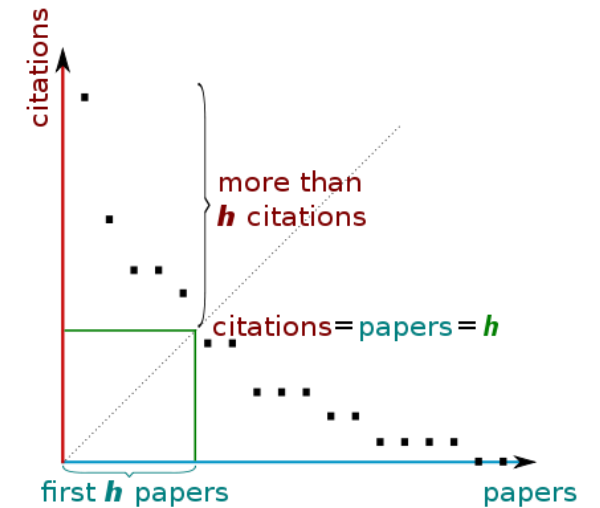
Kubo



UR5

# Recap

- Literature search – the start of every scientific project
- Reading techniques
  - Look for: problems, hypotheses, goals, methods, results, references
- Citation metrics
  - Citations, h-index, impact factor



# Citation metrics - recap

- Citations - references

Statistical analysis also confirmed that the pattern in Figure 2 is not an isolated incident. MPDC during LL, shown in Figure 5, was significantly larger during the driver's turn compared to the dispatcher's turn ( $F(1,15)=59.69$ ,  $p<.001$ ). Similarly, MPDCR shows that during the driver's turns, the driver's pupil diameter was increasing, and it was decreasing during the dispatcher's turns ( $F(1,15)=14.37$ ,  $p<.002$ ). Thus, both MPDC and our newly introduced MPDCR appear to be valuable tools in detecting rapid changes in cognitive load. This is in contrast to the two driving performance measures, which were not significantly different between driver and dispatcher turns during LL. Driving performance is too coarse of a measure and does not neatly follow rapid changes in cognitive load. Note that on average both driver and dispatcher turns took about 4.6 seconds to complete.

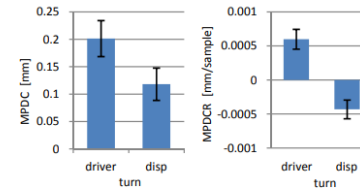


Figure 5 Pupillic measures during LL (with standard error).

## 5 Conclusion

Our results show correspondence between two driving performance measures and the MPDC under our experimental conditions. We suggest that this correspondence is due to convergence of physiological and performance measures of cognitive load. Thus we expect that remote eye tracking is a viable way of cognitive load estimation in a simulated driving environment. Our results also indicate that the MPDCR shows promise as a pupillometric measure of cognitive load. We found it to be a sensitive measure of changes in cognitive load. We expect that this measure might be especially useful when observing rapid changes in cognitive load. For such changes the average pupil size might not change significantly between different tasks, but the first difference might. Finally, our results indicate that both MPDC and MPDCR are finer measures of cognitive load in a driving simulator than variances of lane position and steering wheel angle.

## 6 Acknowledgements

This work was funded by the US Department of Justice under grant 2006DDBXK099 and by the NSF under grant IIS-0326496.

## References

BAILEY B.P., AND IQBAL S. T. 2008. Understanding changes in mental workload during execution of goal-directed tasks and its application for interruption management. *ACM Trans. on Computer-Human Interaction*, 14(4):1-28.

BEATTY, J. 1982. Task Evoked Pupillary Responses, Processing Load and Structure of Processing Resources. *Psychological Bulletin*, 91(2): 276-292.

HART S.G., AND STAVELAND L.E. 1988. Development of NASA-TLX (Task Load Index): Results of empirical and theoretical research. In *Human Mental Workload*, by Meshkati N. Hancock P. A., 239-250. Amsterdam: North Holland Press.

HEALEY J., AND PICARD R. 2000. Smartcar: Detecting driver stress. *Proc. ICPR*. Washington DC: IEEE Computer Society.

IQBAL S.T., ADAMCZYK P.D., ZHENG X.S., AND BAILEY B.P. 2005. Towards an Index of Opportunity: Understanding Changes in Mental Workload during Task Execution. *Proc. CHI'05*. Portland, OR: ACM, 311-320.

IQBAL S.T., ZHENG X.S., AND BAILEY B.P. 2004. Task-Evoked Pupillary Response to Mental Workload in Human-Computer Interaction. *Proc. CHI'04*. Vienna: ACM, 1477-1480.

KUN A.L., PAEK T., MEDENICA Z., MEMAROVIC N., AND PALINKO O. 2009. Glancing at personal navigation devices can affect driving: experimental results and design implications. *Proc. AutomotiveUI'09*, ACM.

KLINGNER J., KUMAR R., AND HANRAHAN P. 2008. Measuring the task-evoked pupillary response with a remote eye tracker. *Proc. ETRA '08*. Savannah, GA: ACM, 69-72.

MARSHALL, S.P. 2002. The Index of Cognitive Activity: measuring cognitive workload. *Proc. IEEE Conf. on Human Factors and Power Plants*, 7-9.

MATTES, S. 2003. The lane-change-task as a tool for driver distraction evaluation. *Proc. ISOES*.

O'DONNELL R.D., AND EGGMEIER F.T. 1986. Workload assessment methodology. In *Handbook of perception and human performance: Vol. II*, by Thomas J.P. Kaufman L. New York: Wiley Interscience.

RECARTE M.A., AND NUNES L.M. 2000. Effects of verbal and spatial-imagery tasks on eye fixations while driving. *J. Experimental Psychology*, 6(1):31-43.

RECARTE M.A., PEREZ E., CONCHILLO A., AND NUNES L.M. 2008. Mental workload and visual impairment: Differences between pupil, blink and subjective rating. *Spanish Journal of Psychology*, 11(2):374-385.

REIMER B., MEHLER B., COUGHLIN J.F., GODFREY K.M., AND TAN C. 2009. An on-road assessment of the impact of cognitive workload on physiological arousal in young adult drivers. *Proc. AutomotiveUI'09*, ACM, 115-118.

SCHWALM M., KEINATH A., AND ZIMMER H.D. 2008. Pupillometry as a method for measuring mental workload within a simulated driving task. In *Human Factors for assistance and automation*, by Flemisch F., Lorenz B., Oberheid H., Brookhuis K. De Waard D. Maastricht: Shaker Publishing.

SHYROKOV, A. 2010. Human-human multi-threaded spoken dialogs in the presence of driving. PhD dissertation (in preparation). University of New Hampshire.

WICKENS, C.D. 2002. Multiple Resources and Performance Prediction. *Theoretical Issues in Ergonomics Sci.*, 3(2):159-177.

# Citation metrics - recap

- H-index – max number of papers with at least the same number of citations
- i10-index – number of papers with at least ten citations



Oskar Palinko

SDU Robotics, [University of Southern Denmark](#)  
Verified email at mmmi.sdu.dk

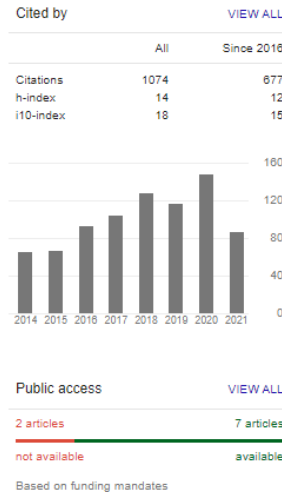
[human robot interaction](#) [human computer interaction](#) [eye tracking](#)

[FOLLOW](#)

[GET MY OWN PROFILE](#)

TITLE	CITED BY	YEAR
<a href="#">Estimating cognitive load using remote eye tracking in a driving simulator</a> O Palinko, AL Kun, A Shyrovkov, P Heeman Proceedings of the 2010 symposium on eye-tracking research & applications ...	367	2010
<a href="#">Augmented reality vs. street views: a driving simulator study comparing two emerging navigation aids</a> Z Medenica, AL Kun, T Paek, O Palinko Proceedings of the 13th International Conference on Human Computer ...	146	2011
<a href="#">Glancing at personal navigation devices can affect driving: experimental results and design implications</a> AL Kun, T Paek, Z Medenica, N Memarović, O Palinko Proceedings of the 1st International Conference on Automotive User ...	111	2009
<a href="#">Robot reading human gaze: Why eye tracking is better than head tracking for human-robot collaboration</a> O Palinko, F Rea, G Sandini, A Sclutti 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems ...	66	2016
<a href="#">Exploring the effects of visual cognitive load and illumination on pupil diameter in driving simulators</a> O Palinko, AL Kun Proceedings of the Symposium on Eye Tracking Research and Applications, 413-416	50	2012
<a href="#">Exploring the influence of light and cognitive load on pupil diameter in driving simulator studies</a> O Palinko, A Kun University of Iowa	50	2011
<a href="#">Exploring the effects of size and luminance of visual targets on the pupillary light reflex</a> AL Kun, O Palinko, I Razumenić Proceedings of the 4th International Conference on Automotive User ...	33	2012
<a href="#">On the feasibility of using pupil diameter to estimate cognitive load changes for in-vehicle spoken dialogues</a> AL Kun, O Palinko, Z Medenica, PA Heeman INTERSPEECH, 3766-3770	26	2013
<a href="#">Eye gaze tracking for a humanoid robot</a> O Palinko, F Rea, G Sandini, A Sclutti 2015 IEEE-RAS 15th International Conference on Humanoid Robots (Humanoids ...	20	2015
<a href="#">A gaze-contingent dictating robot to study turn-taking</a> A Sclutti, L Schillingmann, O Palinko, Y Nagai, G Sandini Proceedings of the Tenth Annual ACM/IEEE International Conference on Human ...	20	2015
<a href="#">Exploring In-Car Augmented Reality Navigation Aids: A Pilot Study</a> Z Medenica, O Palinko, AL Kun, T Paek Conference Supplement, Ubicomp	18	2009
<a href="#">Towards augmented reality navigation using affordable technology</a> O Palinko, AL Kun, Z Cook, A Downey, A Lecomte, M Swanson, ... Proceedings of the 5th International Conference on Automotive User ...	17	2013
<a href="#">Utilizing pupil diameter to estimate cognitive load changes during human dialogue: A preliminary study</a> AL Kun, Z Medenica, O Palinko, PA Heeman Workshop on Cognitive Load and In-Vehicle Human-Machine Interaction ...	17	2011
<a href="#">Estimating cognitive load using pupil diameter during a spoken dialogue task</a> PA Heeman, T Meshorer, AL Kun, O Palinko, Z Medenica Proceedings of the 5th International Conference on Automotive User ...	14	2013
<a href="#">Towards Storytelling with Geotagged Photos on a Multitouch Display</a> O Palinko, A Singh, MA Farrar, M Litchfield, AL Kun Conference Supplement, Ubicomp	14	2009
<a href="#">Gaze contingency in turn-taking for human robot interaction: advantages and drawbacks</a> O Palinko, A Sclutti, L Schillingmann, F Rea, Y Nagai, G Sandini 2015 24th IEEE International Symposium on Robot and Human Interactive ...	12	2015
<a href="#">If looks could kill: Humanoid robots play a gaze-based social game with humans</a> O Palinko, A Sclutti, Y Wakita, Y Matsumoto, G Sandini 2016 IEEE-RAS 16th International Conference on Humanoid Robots (Humanoids ...	10	2016
<a href="#">Communicative lifting actions in human-humanoid interaction</a> O Palinko, A Sclutti, L Patané, F Rea, F Nori, G Sandini 2014 IEEE-RAS International Conference on Humanoid Robots, 1116-1121	10	2014

Cited by	<a href="#">VIEW ALL</a>	
	All	Since 2014
Citations	658	491
h-index	11	10
i10-index	12	11



# Impact factor

- Measures the impact of a scientific journal by how much it is cited:
- $2018\ IF = C / I$
- C: for all papers published the last two years (2016-2017), this is the total number of times all these papers were cited **in papers from 2018**
- I: the total number of *citable items* published by that journal in 2016-2017
- Citable items: articles, reviews, proceedings, notes

# IF, EF and AIF

IEEE.org | IEEE Xplore Digital Library | IEEE-SA | IEEE Spectrum | More Sites | Cart(0) | Create Account | Personal Sign In

IEEE Xplore® Digital Library

Access by SDU UNIVERSITY LIBRARY OF SOUTHERN DENMARK

Access provided by: University of Southern Denmark » Sign Out

IEEE

Browse ▾ My Settings ▾ Get Help ▾

All ▾ Enter keywords or phrases (Note: Searches metadata only by default. A search for 'smart grid' = 'smart AND grid') 🔍

Search within Publication Advanced Search | Other Search Options ▾

Browse Journals & Magazines > IEEE Transactions on Pattern A ... ?

## IEEE Transactions on Pattern Analysis and Machine Intelligence

Add Journal To My Alerts RSS

Home Popular Early Access Current Issue Past Issues About Journal Submit Your Manuscript

The IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) is published monthly. Its editorial board strives to present most important research results in areas within TPAMI's scope.  
[Aims & Scope >](#)

9.455 Impact Factor	0.06412 Eigenfactor	4.714 Article Influence Score
------------------------	------------------------	----------------------------------

# Search strategy

- A “science” for itself
- Choosing the right search keywords is the most crucial for finding the best papers
- You need to find keywords for your topic
- Look in already known papers – which keywords do they use?
- Use the quotation marks for searching for key phrases “eye tracking”
- Look at what the found papers cite (reference section)
- Look who is citing the found papers
- Once you are finding the same high-quality papers repeatedly, you “closed the loop”, i.e. researched the topic deep enough

## [Eye gaze tracking for a humanoid robot](#)

[O Palinko, F Rea, G Sandini...](#) - ... on Humanoid **Robots** ..., 2015 - [ieeexplore.ieee.org](#)

Humans use eye **gaze** in their daily interaction with other humans. Humanoid **robots**, on the other hand, have not yet taken full advantage of this form of implicit communication. In this paper we present a passive monocular **gaze tracking** system implemented on the iCub ...

☆ 77 **Cited by 19** [Related articles](#) [All 4 versions](#)



# Assessing an article

- **Abstract**

- Can you essentially grasp the whole story from the abstract?

- **Introduction**

- Is the aim/hypothesis/novelty clear?

- **Method and results**

- Are experimental protocols followed?
- Are experiments fair?
- Are statistics proper?
- Are results reproducible?

- **Discussion**

- Is it even included?
- Are alternatives and limitations disclosed?

- **Conclusion**

- Are they reasonable or too optimistic?

- **References**

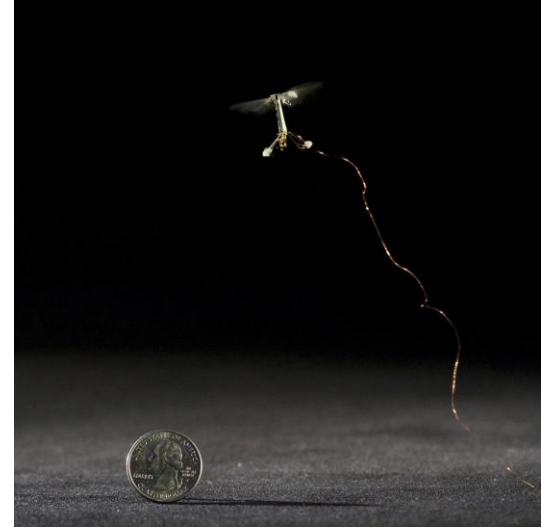
- Are they adequate?
- What about self-citations?

# Activity

Use WoS and Google Scholar to locate today's paper:

Ma, Kevin Y., et al. "Controlled flight of a biologically inspired, insect-scale robot." *Science* 340.6132 (2013): 603-607.

1. Read the paper
2. Assess it according to previous slide



# Scientific conferences

- What are they and why would you care about scientific conferences, oral and slide presentations?

# Scientific conferences

- If you are not staying in academia you might still work in research or in R&D
- Scientific conferences
  - You might be a likely visitor of scientific conferences
  - Examples
- Presentation skills
  - Need to convince people of your ideas!
  - If you will have a “boss” you need these skills
  - Telling a story can help a lot

# Scientific conferences

# Problems with journal papers

- Most important product of science
- Review process can sometimes take several years!
  - The paper content is old!



# Getting a journal paper accepted takes time

Initial submission

Rejected by editor

Rejected by editor

Rejected by reviewers

Rejected by reviewers

Accept with major revision

Revision 1

Revision 2

...

ACCEPT

Journals By Rank

Categories By Rank

Journal Titles Ranked by Impact Factor

Show Visualization +

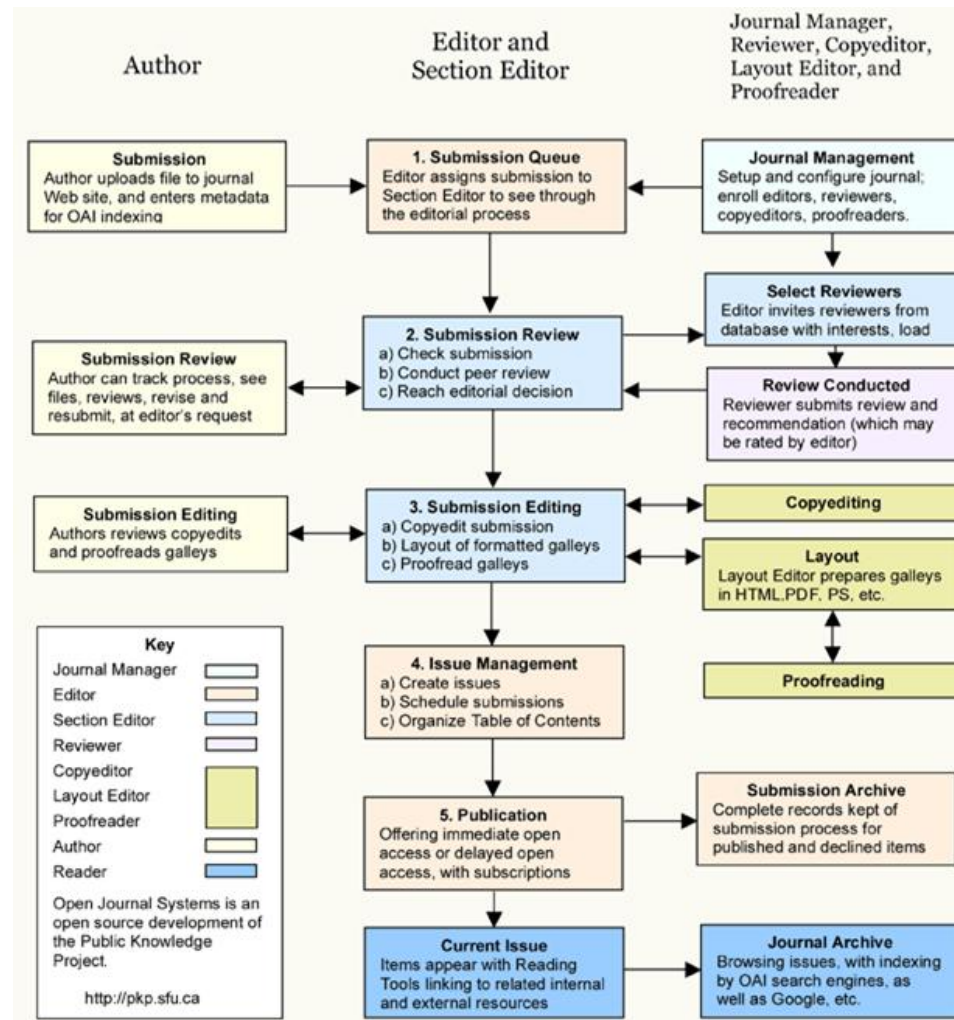
Compare Selected Journals

Add Journals to New or Existing List

Customize Indicators

Select All		Full Journal Title	Total Cites	Journal Impact Factor	Eigenfactor Score
<input type="checkbox"/>	1	NATURE MEDICINE	65,230	30.357	0.16250
<input type="checkbox"/>	2	Science Translational Medicine	17,066	16.264	0.11542
<input type="checkbox"/>	3	JOURNAL OF CLINICAL INVESTIGATION	101,063	12.575	0.18555
<input type="checkbox"/>	4	JOURNAL OF EXPERIMENTAL MEDICINE	62,854	11.240	0.10565
<input type="checkbox"/>	5	Annual Review of Medicine	5,666	10.954	0.01234
<input type="checkbox"/>	6	MOLECULAR ASPECTS OF MEDICINE	4,178	10.860	0.01075
<input type="checkbox"/>	7	EMBO Molecular Medicine	4,471	9.547	0.02328
<input type="checkbox"/>	8	TRENDS IN MOLECULAR MEDICINE	7,703	9.292	0.02056
<input type="checkbox"/>	9	Theranostics	2,813	8.854	0.00961
<input type="checkbox"/>	10	MOLECULAR THERAPY	14,136	6.938	0.03586
<input type="checkbox"/>	11	ALTEX-Alternatives to Animal Experimentation	964	5.824	0.00189
<input type="checkbox"/>	12	EXPERT REVIEWS IN MOLECULAR MEDICINE	1,638	5.710	0.00368

# Peer review takes time





# Review process



International Journal of Computer Vision 70(1), 41–54, 2006  
© 2006 Springer Science + Business Media, LLC. Manufactured in The Netherlands.  
DOI: 10.1007/s11263-006-7899-4

## Efficient Belief Propagation for Early Vision

PEDRO F. FELZENSZWALB

*Computer Science Department, University of Chicago*

pff@cs.uchicago.edu

DANIEL P. HUTTENLOCHER

*Computer Science Department, Cornell University*

dph@cs.cornell.edu

*Received February 24, 2005; Revised February 14, 2006; Accepted February 22, 2006*

*First online version published in May, 2006*

**Abstract.** Markov random field models provide a robust and unified framework for early vision problems such as stereo and image restoration. Inference algorithms based on graph cuts and belief propagation have been found to yield accurate results, but despite recent advances are often too slow for practical use. In this paper we present some algorithmic techniques that substantially improve the running time of the loopy belief propagation approach. One of the techniques reduces the complexity of the inference algorithm to be linear rather than quadratic in the

# The scientific conference



# The scientific conference

- Sharing scientific achievements
- Networking
- Debating research policies, best practices and alternative theories
- Organizers
  - Professional societies
    - IEEE – Institute of Electrical and Electronics Engineers
  - Scientific societies
    - AAAS – American Association for the Advancement of Science
    - ACM – Association for Computing Machinery
  - Commercial conference companies



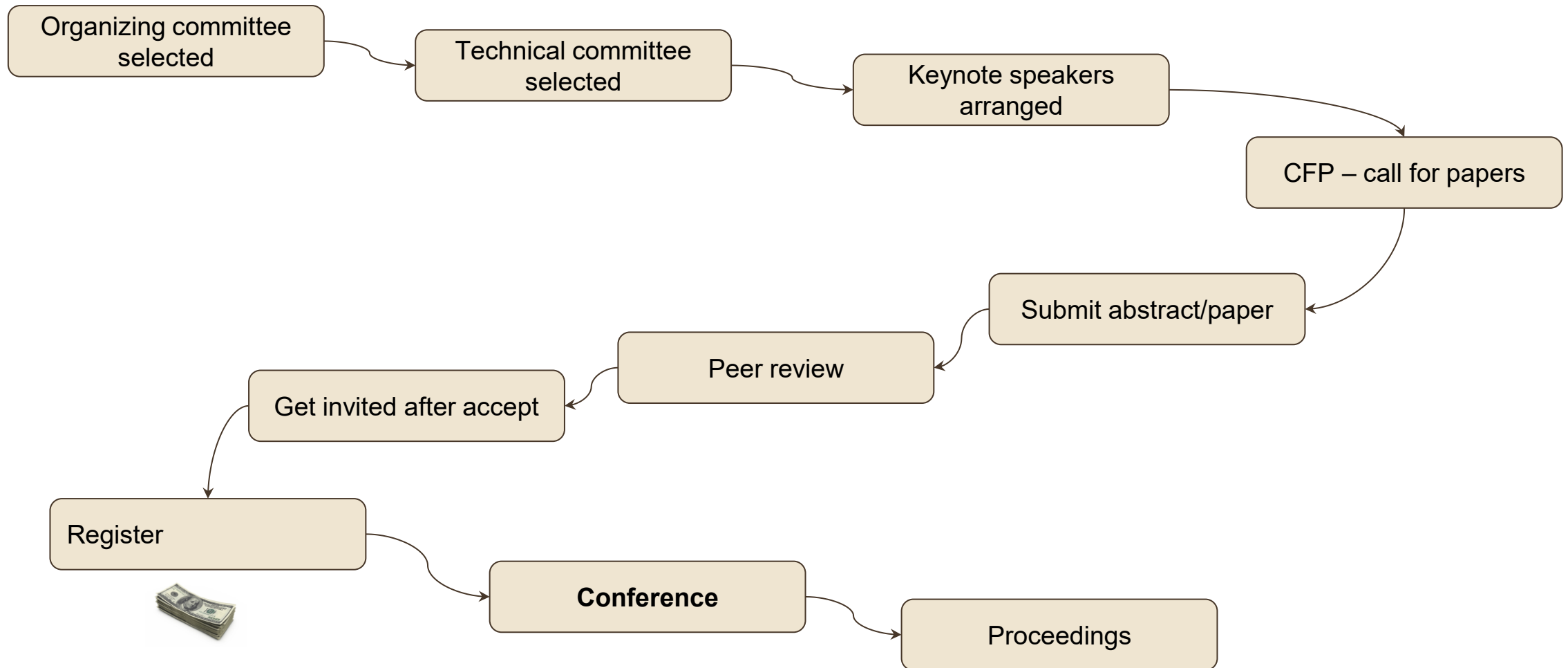
# Why attend a conference?

- Show your current work
- Meeting people
- Possible collaborations
  - Asking into their weird results
- Getting updates
  - Competition
  - Exploitation
- Exhibits/demonstrations
- Looking for a job
- Networking

# Conferences and Publications in Different Fields

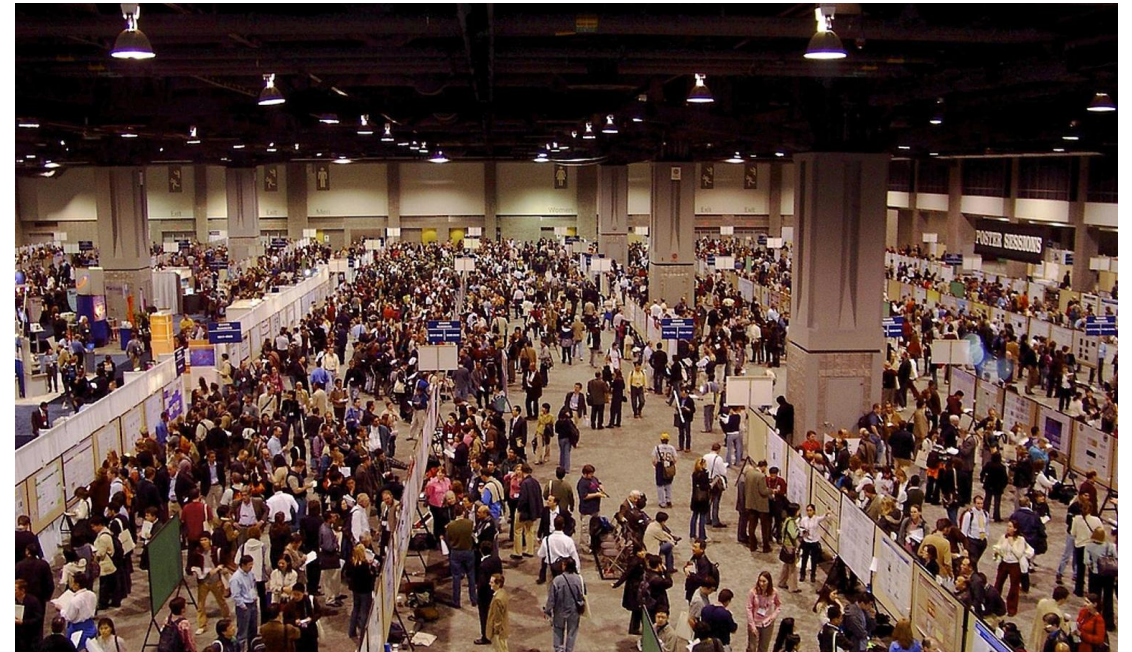
- In technical fields
  - Conference submission leads to publication
  - Oral or poster presentation
  - Peer review process
  - Publication in “proceedings” of the conference
  - Fully citable
- In some non-technical fields – e.g. psychology, geology
  - Submission of abstracts
  - Presentation of posters
  - Networking and socializing

# Before the conference



# At the conference

- Sessions (single/multi track)
  - Oral
  - Poster
- Exhibitions/demonstrations
- Social activities



# Conferences

- A great place for
  - ideas for projects,
  - job opportunities
  - If there's someone you want to talk to, act strategically:
    - Ask about their research, details
    - Don't surprise them, e.g. "let's work together"
    - An email before the conference helps
- Student access usually granted at a much reduced price



# In-house Conference

- Within SciMet course - we need organizing committee
- You will submit your project papers to this conference
- Peer-review from colleagues
- Present your paper

# ICSR conference



[Home](#) [Committee](#) [Calls](#) [Registration](#) [Program](#) [Venue](#) [Sponsorship](#)

## 16th International Conference on Social Robotics +AI

October 23-26, 2024 – Odense, Denmark

The 16th International Conference on Social Robotics will bring together researchers and practitioners working on the interaction between humans and intelligent robots and on the integration of social robots into our society. ICSR'24 will take place in Odense, Denmark as a face-to-face conference between October 23-26, 2024. This will be the first time that the conference will be hosted in Denmark and Scandinavia. The theme of this year's conference is **"Empowering Humanity: The Role of Social and Collaborative Robotics in Shaping Our Future"**.

The conference welcomes original contributions describing technically rigorous scientific and research advances in the area of social robotics and AI: Innovative ideas and concepts, new discoveries and improvements, novel applications on the latest fundamental advances in the core technologies that form the backbone of social robotics as well as distinguished studies and projects pertaining the social robotics and its interaction and impact in our society. **Empowering Humanity** also means recognizing how social robotics and AI can help push the boundaries of creative expression and interactive experiences. This year's conference welcomes contributions that engage social robotics and AI across the domains of the visual and performing arts, including design, music, live performance, and interactive installations.

### Topics

The topics of interest include, but are not limited to the following:

- Collaborative robots in service applications (in construction, agriculture, etc.)
- Human-robot interaction and collaboration
- Affective and cognitive sciences for socially interactive robots
- Context awareness, expectation, and intention understanding
- Control architectures for social robotics
- Software frameworks for social robotics
- Robot applications in education, entertainment, and gaming
- Robot ethics in human society
- Robots in healthcare and welfare environments
- Robots that can adapt to different users
- Robots to assist the elderly and persons with disabilities
- Robots with personality
- Safety in robots working in human spaces
- Socially assistive robots to improve quality of life

[Go to the Registration page!](#)

[Submit revised and camera-ready papers](#)

### Deadlines:

Full papers: July 5th July 12th; **July 19th, 2024**

Special Sessions Full: July 12th; **July 19th**

Special Sessions Short: July 12th; **August 9th**

Short Papers: August 5th **August 9th**

Full-paper notification: August 19th

Early-bird registration: August 22nd August 29th

Workshop submission deadline: September 4th

Short paper notification: September 4th

Competition submission deadline: September 4th, **September 13th**

Camera-ready papers: September 26th

# ICSR conference



[Home](#) [Committee](#) [Calls](#) [Registration](#) [Program](#) [Venue](#) [Sponsorship](#)

## Full Paper Submission

See our call for papers here: [Call for Papers \(CfP\)](#).

The conference welcomes original contributions describing technically rigorous scientific and research advances in the area of social robotics and AI: innovative ideas and concepts, new discoveries and improvements, novel applications on the latest fundamental advances in the core technologies that form the backbone of social robotics as well as distinguished studies and projects pertaining the social robotics and its interaction and impact in our society.

Papers should contain original research that has neither been published nor submitted for publication elsewhere.

Authors are invited to submit their papers via the OCS submission system. The system will become available later this spring.

Authors can submit the complete article in PDF format following [Springer's author's guidelines](#) either for LaTeX or Word. Springer's proceedings LaTeX templates are also available in [Overleaf](#). Full papers should be of 10 pages, references included. However, 4 additional pages are allowed, but at an extra charge (50\$ per page). The front page must contain the title of the paper, full name(s) and address(es) of the author(s) and the appropriate academic field(s). Springer encourages authors to include their ORCID(s) in their papers. All papers will be refereed by the program committee.

Authors must be made aware of the fact that they have to submit a signed Consent to Publish form, through which the copyright of their paper is transferred to Springer. The corresponding author should sign on behalf of all of the authors of a particular paper, having obtained their permission to do so in advance. The corresponding author cannot be changed once the files have been sent to Springer.

The Proceedings of ICSR 2024 will be published by Springer International Publishing as part of the Lecture Notes in Artificial Intelligence series (LNAI), a topical subseries of the Lecture Notes in Computer Science (LNCS). The proceedings of the conference are indexed by SpringerLink and Scopus.

Selected papers will be invited for publication as a Special Issue in the [International Journal of Social Robotics](#).

## Important dates

Full Paper Submission: ~~July 5th, 2024~~, **July 19th, 2024, 23:59 AoE**

Full Paper Notification: ~~August 5th, 2024~~, **August 19th, 2024**

Camera-ready paper submission: ~~August 20th, 2024~~, ~~August 27th~~, **September 26th, 2024**

Paper Presentation Days at ICSR'24: October 24th and 25th, 2024

[Go to the Registration page!](#)

[Submit revised and camera-ready papers!](#)

## Deadlines:

Full papers: ~~July 5th~~ ~~July 12th~~, **July 19th, 2024**

Special Sessions Full: ~~July 12th~~, **July 19th**

Special Sessions Short: ~~July 12th~~, **August 9th**

Short Papers: ~~August 5th~~ **August 9th**

Full-paper notification: August 19th

Early-bird registration: ~~August 22nd~~ **August 29th**

Workshop submission deadline: ~~September 4th~~

Short paper notification: ~~September 4th~~

Competition submission deadline: ~~September 4th~~, **September 13th**

Camera-ready papers: September 26th

For the latest news about ICSR



# ICSR conference



## Registration

All rates include 25% VAT. To register, please use the links available below. In case you have a discount code, e.g., when cross-registering with ROSCon, please make sure to use the correct link and follow the instructions.

	Early Bird Rate Available until <del>22/06/2024</del> 29/08/2024	Regular Rate Available until 18/10/2024	On Site Rate
Regular Registration, Full <sup>1,4,6</sup>	5.100 DKK	6.200 DKK	7.200 DKK
Regular Registration, 1-day <sup>4,6,7</sup>	3.300 DKK	4.200 DKK	5.100 DKK
Student Registration, Full <sup>1,2,4,6</sup>	3.700 DKK	4.700 DKK	5.700 DKK
Student Registration, 1-day <sup>2,4,6,7</sup>	1.900 DKK	2.800 DKK	3.700 DKK
Workshop attendance only <sup>4,6</sup>	900 DKK	1.200 DKK	1.400 DKK
Competition only <sup>8</sup>	1.600 DKK	1.600 DKK	N/A
Competition only, student <sup>2,8</sup>	800 DKK	800 DKK	N/A
<a href="#">Conference dinner participation</a>	900 DKK	900 DKK	N/A
<a href="#">Brewery Tour at conference dinner</a>	200 DKK	200 DKK	N/A
Extra page <sup>3</sup>	350 DKK	350 DKK	N/A
<a href="#">Uncanny Valley – theater play</a> <sup>5</sup>	250 DKK	250 DKK	250 DKK
<a href="#">LEGO House visit</a>	595 DKK	595 DKK	N/A
<a href="#">H.C. Andersen's Museum visit</a>	265 DKK	265 DKK	N/A

<sup>1</sup> Full registrations includes includes the presentation and publishing of maximally two accepted papers. The registering person must be among the authors of the papers to be covered by the registration.  
<sup>2</sup> Students must be able to present a valid student ID at the venue.  
<sup>3</sup> At most 4 extra pages can be acquired for full papers. For short papers at most 2 extra pages can be acquired.  
<sup>4</sup> The registration qualifies for a 15% discount for ROSCon attendees.  
<sup>5</sup> The ticket is valid for a evening show of the Uncanny Valley on the 25<sup>th</sup> of October. Conferences attendees will be guided to the theatre venue.  
<sup>6</sup> The registration includes participation in the welcoming reception and catering throughout the day.  
<sup>7</sup> Note: 1-day registrations do not include the publishing of accepted papers.  
<sup>8</sup> The *competition only* registrations is valid for finalists for the design competition and includes the exhibition of contributions at the venue.

To register, please use the portal:

Register here!

**Discounts:** In case you have a discount code, please follow the instructions provided [here](#) instead of the above link.

Go to the Registration page!

Submit revised and camera-ready papers

### Deadlines:

Full papers: ~~July 5th~~ ~~July 12th~~; **July 19th, 2024**  
Special Sessions Full: ~~July 12th~~; **July 19th**  
Special Sessions Short: ~~July 12th~~; **August 9th**  
Short Papers: ~~August 5th~~ **August 9th**  
Full-paper notification: August 19th  
Early-bird registration: ~~August 22nd~~ **August 29th**  
Workshop submission deadline: ~~September 4th~~  
Short paper notification: ~~September 4th~~  
Competition submission deadline: ~~September 4th~~, **September 13th**  
Camera-ready papers: September 26th

For the latest news about ICSR follow us on:

[LinkedIn](#)

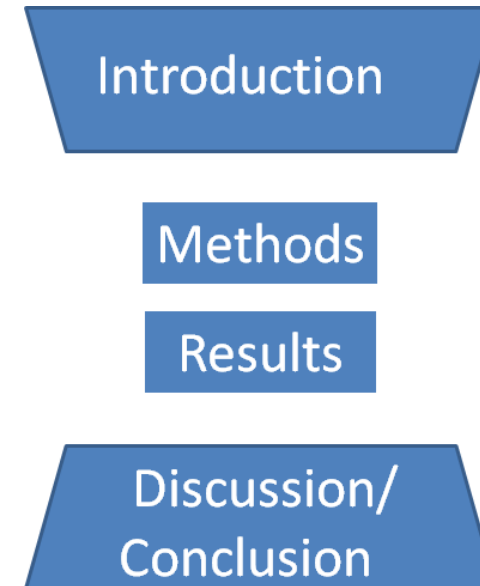
# Activity

- Choose two conferences from pervious years - here's some examples:
  - ICRA, IROS, ICSR
- Tasks (yes the conferences have passed, but we pretend they haven't)
  - Find out key information:
    - Location, organizers/organizations behind, scientific committee, keynote speakers, deadline for submitting a paper
  - For each conference, now locate a paper through e.g. IEEE Xplore or Scholar
    - Read and evaluate the abstracts
    - Which conference/talk would you go to?

# Oral presentations

# Structure

- Introduction
- Methods
- Experiments
- Conclusion



<https://en.wikipedia.org/wiki/IMRAD>

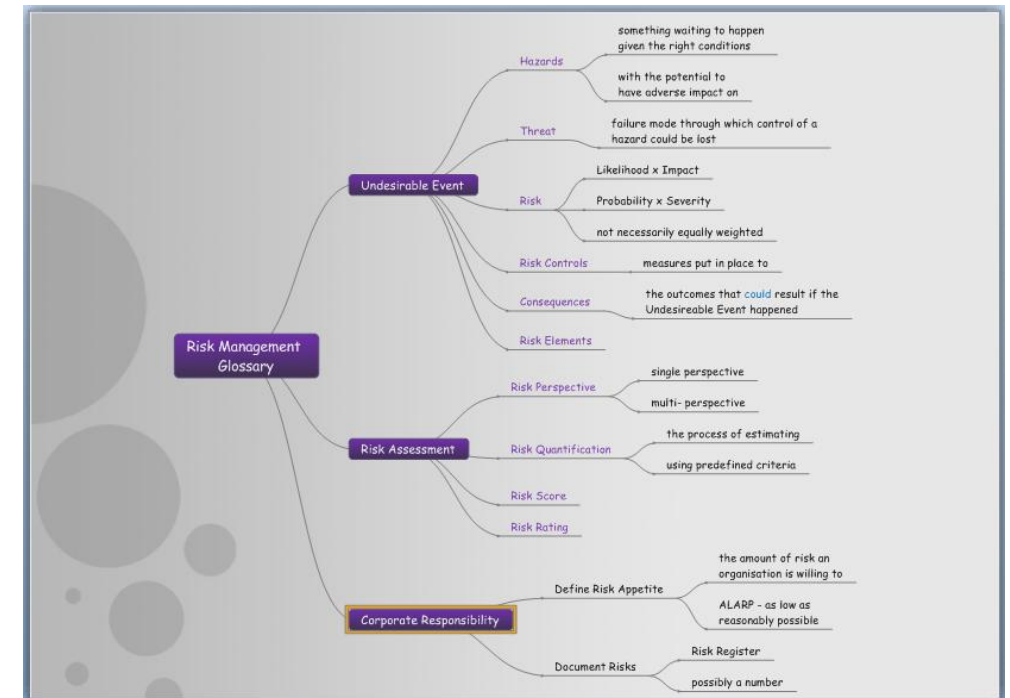
# Introduction

- Introduce yourself
- Motivation: why is your talk important (the hook)
- Introduce key concepts
  - Maybe you provide a high-level overview of your methods



# Methods

- Logical order
  - From known stuff → novelties
- Granularity
  - Choose wisely when to go into details
  - Careful with formulas
  - Could some things be explained by intuitive analogies?



# Experiments

- Important experiments only
- Logical order - again
  - Not (necessarily) chronological
- One experiment per slide
- Figures
  - Only use the ones that are easy to explain
  - Explain them!

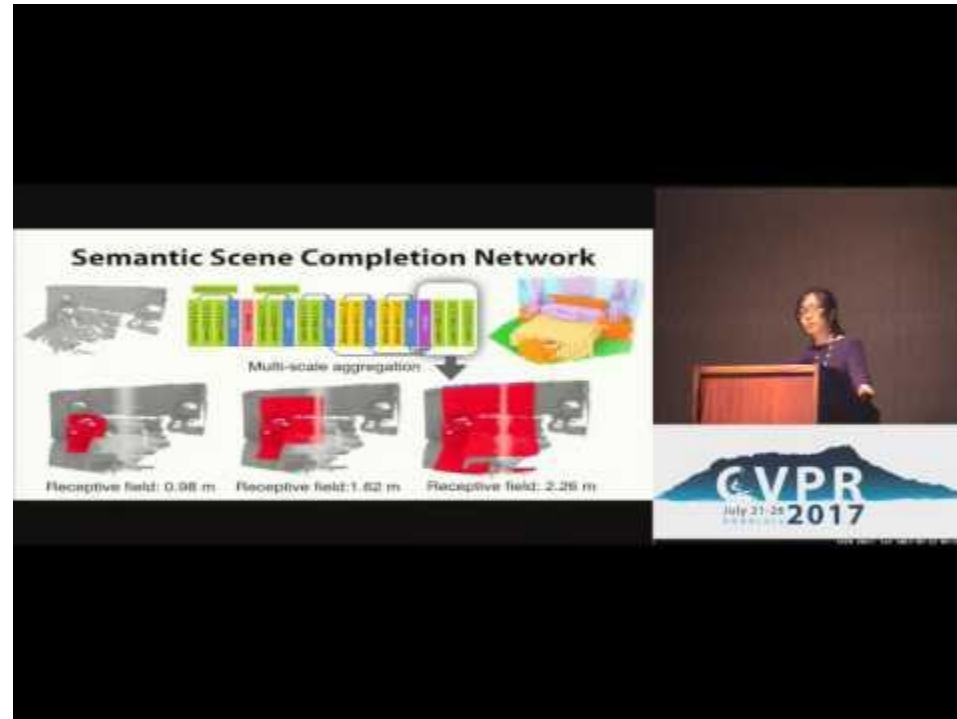
# Conclusion

- Main conclusions and innovations
  - Take home message
- Future perspectives
- Acknowledgments
  - Advisors, students, collaborators, institutions, funding bodies, audience

# Examples

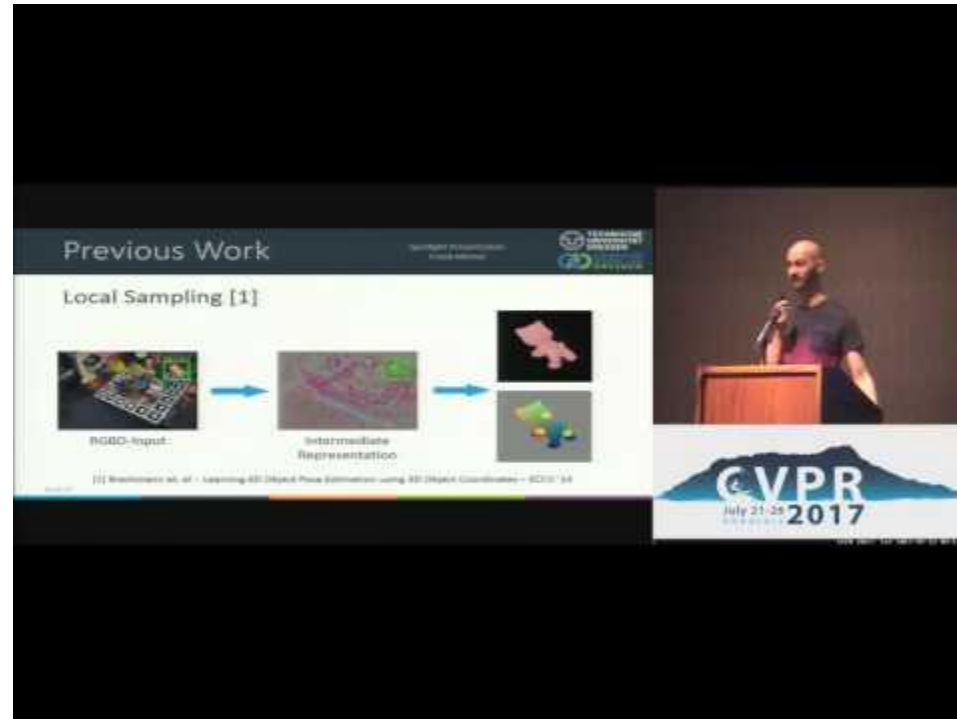
- Pay attention to contents and presenter behavior/efficiency

# Examples



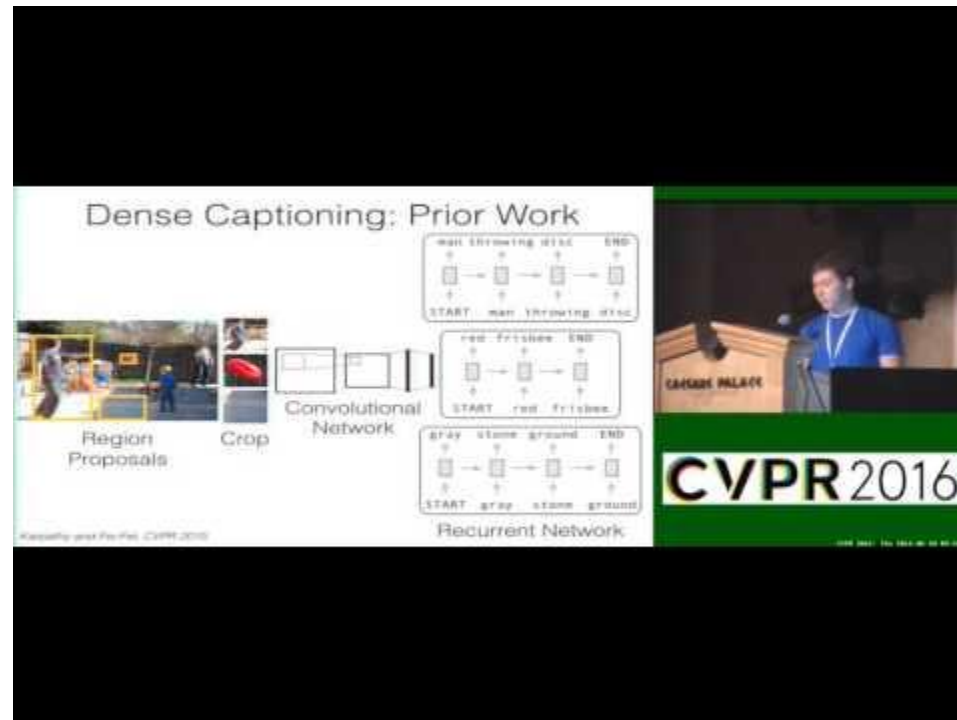
<http://www.youtube.com/watch?v=Aq7hLLIz5a0>

# Examples



[http://www.youtube.com/watch?v=JfwO91B1i\\_Q](http://www.youtube.com/watch?v=JfwO91B1i_Q)

# Examples



<http://www.youtube.com/watch?v=2wRnmRSrgCo>

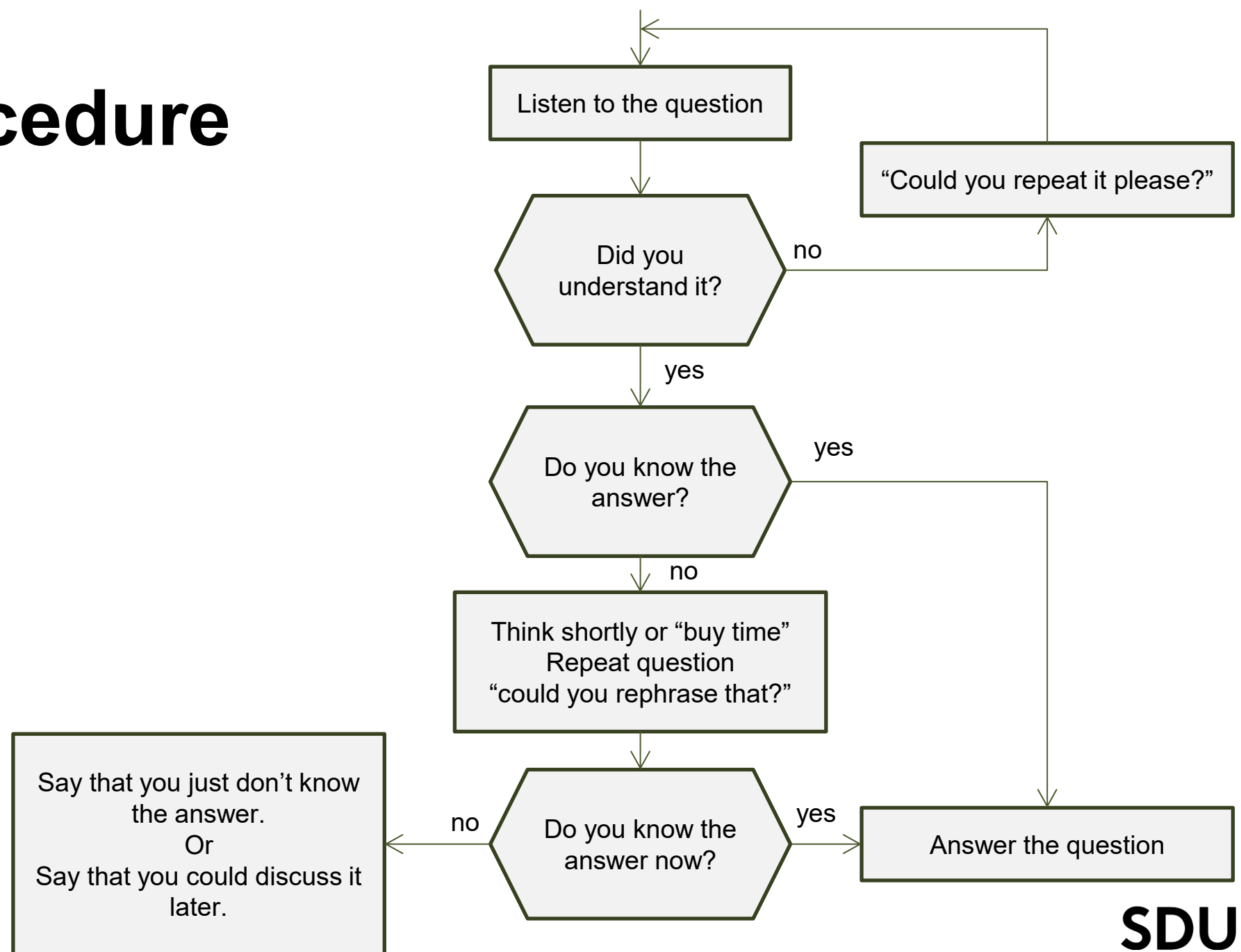
# Take questions

- Make sure you understand the question
  - Or else request a rephrase
- Awkward question? Be friendly:
  - “Interesting point. I’ll have to think about it.”
  - “Perhaps we can discuss this after the talk?”
- Silence is your enemy





# Q&A Procedure



# Q&A "Buying time"

- Repeat the question (for everyone to hear)
- "That's a very good question, thank you for asking it"
- "Hmmm" – look to the sky for possible divine intervention
- "Could you rephrase the question?"
- It is ok to say "I don't know"

# For person asking question

- Be polite but ask tough questions if need be
- Start with:
  - “Thank you for your presentation” – if it was bad
  - “That was a great presentations, thanks!” – if you liked it

# Q&A Final Thoughts

- Do not stand in silence for more than 5 seconds
- End the question one way or the other
- The questioner might have their own agenda, so be defensive but not too defensive!

# Tips when presenting

- Know your audience
  - Adjust the scientific level
- Consider relevancy
  - Make clear to the audience what novelty you are bringing



# Language

- English is the de facto language of science of our age whether we like it or not
- Native English speakers will have an advantage
- Master your English
- For best results: tell a story!

# Engage your audience

# Engage your audience

- Make eye contact
- Ask for their participation
- Do not read your slides (all the time)
- Confidence – fake it till you make it



# Timing and Practice

- Do not overstep your time
- Do not make it too short
- Very important presentation
  - practice the night before
  - in front of a mirror
  - 10.000 hours – Malcolm Gladwell – Outliers (book)

# Final presentation tips

- Take a course on public speaking
- Confidence (fake it till you make it)
- Articulate what you are saying!
- Watch a video of yourself presenting (learn from Trump)

# Public speaking tips

- Counteract nervousness with preparation and practice
- Pay attention to feedback
- Use humor, tell stories if you are able to.
- Use hand gestures and body gestures appropriately
- Don't read from slides
- Use audiovisual aids wisely

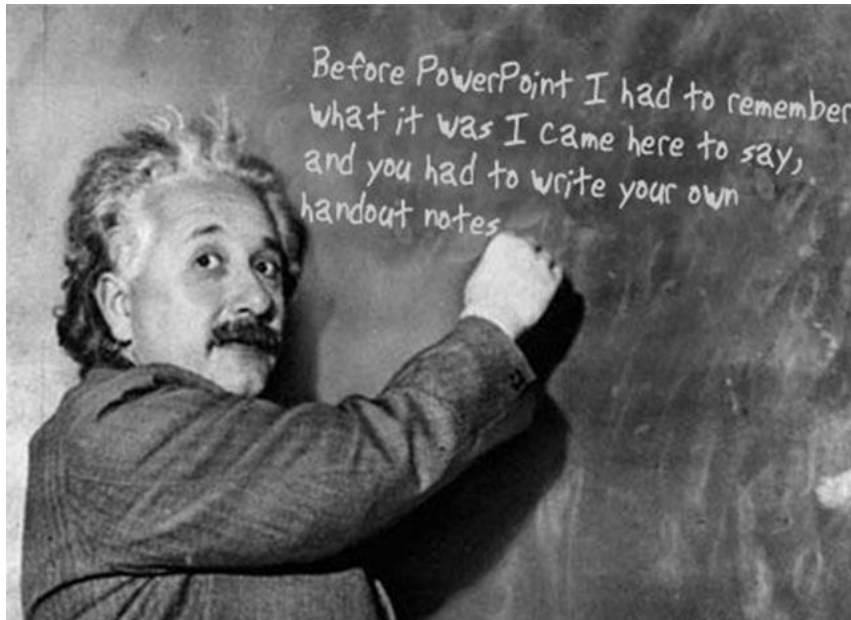
# Activity

## Presentation

- Make introductory slides for your group's research topic
- If not selected yet, slides on your past projects, BSc?
- Focus on
  - Intro (motivation, problem, hypo)
  - Methods
  - (Expected) results
  - Discussion/conclusion
- Try to tell a story, if possible

# Slides

# Do you need them?



# Possible without slides?

- If you are “brave enough”
- But most often the answer is: it’s much better with slides
- Purpose of slides:
  - Clarify your points
  - Help you remember your points

# Clarity

- Clutter
- Information level – too much or not enough
- Animations
  - Attention thieves
  - Limit the use of special effects
  - Help providing a sense of flow



# Fonts

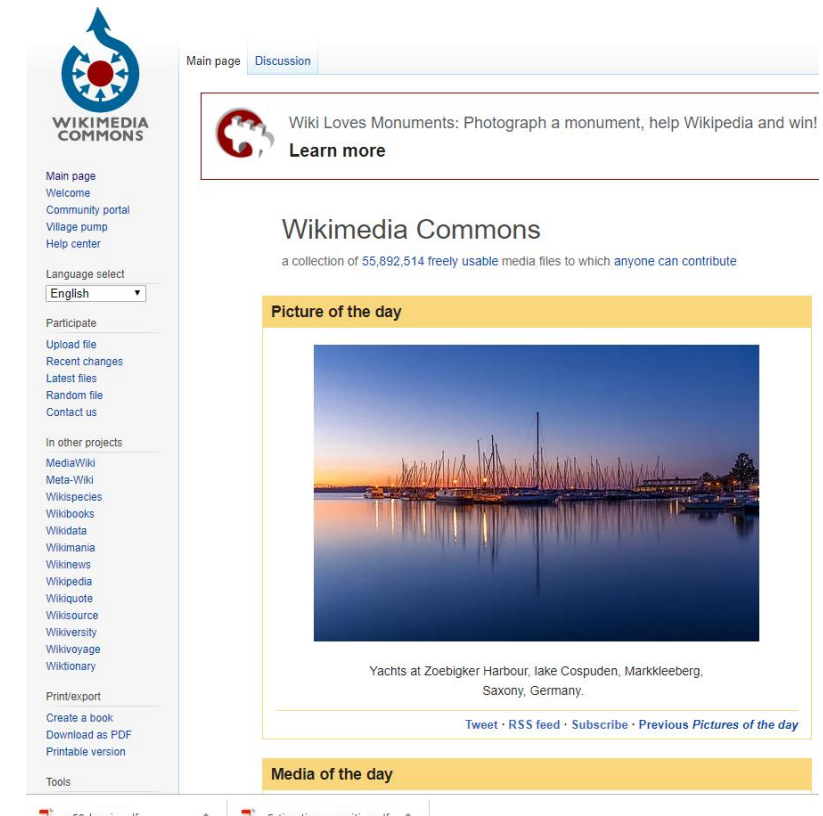
- Too large

- *Unreadable*
- Too informal
- Sans serif vs. with serif
- No colors/colors
  - Don't forget what background color you are using
  - Comic Sans (please don't!)



# Images

- It's good to use images to break up monotony
- In papers other people's images are very rarely used
- In presentations
  - Best to use your own
  - Use others' images with acknowledgement
  - Fair use
- Wikimedia Commons
  - Pay attention to what the rights to the image are



# Text and Bullet Points

- Do not write a full paragraph of text to make sure that you don't forget to say anything. It is very confusing for the audience if there is too much text because they are either going to miss what you are saying or what is written.
- Ideas, a couple of words
- My approach: use bullet points
- Keep them low in numbers per slide
- Space them out, if possible

# Alternative designs

Beware of the increased maintenance

Don't forget the new colors

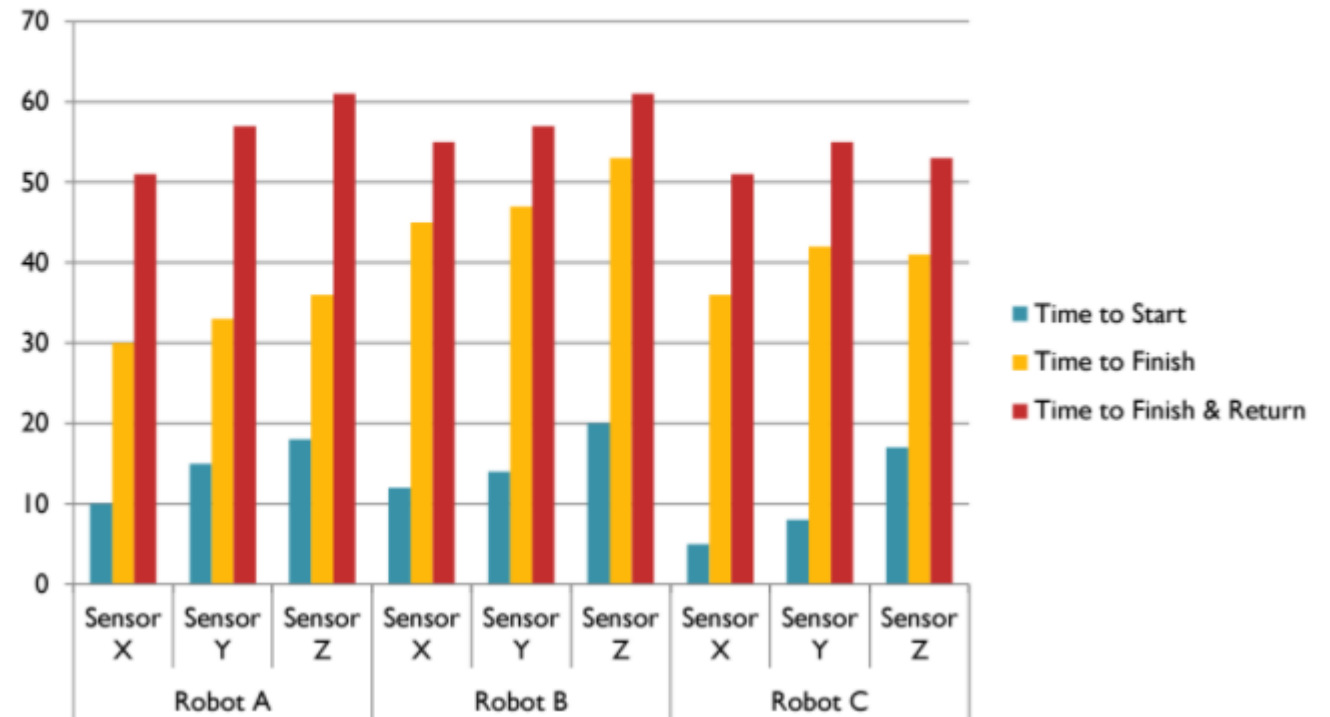
# Equations

$$\begin{aligned}
 k &= \frac{1}{4\pi\epsilon_0 E_f} \quad Z = Z_{0b} \cdot \mu_{ex} = \frac{\Delta}{f_1} \frac{d}{f_2} \Delta t = \frac{\Delta t'}{\sqrt{1-v^2/c^2}} \quad f = \frac{1}{T} \quad \mu = \frac{m}{m_0} = \frac{Q}{N_A} \quad \phi_e = \frac{\Delta E}{\Delta t} \quad \omega = 2\pi f \\
 \log \frac{L}{L_0} &= 4 \log \frac{T_{0f}}{K} + 2 \log \frac{R}{R_0} - 4 \log \frac{T_0}{K} \quad \frac{\sin \alpha}{\sin \beta} = \frac{v_1}{v_2} \quad \frac{\mu_1}{\mu_2} \lambda = \frac{h}{\sqrt{2eUm_e}} \quad \frac{M_m}{N_A} = \frac{M_r \cdot 10^{-3}}{N_A} \quad H_\lambda = \frac{\Delta M_e}{\Delta \lambda} \\
 v_k &= \sqrt{\frac{3kT}{m_0}} = \sqrt{\frac{3kTN_A}{M_m}} = \sqrt{\frac{3R_m T}{M_m \cdot 10^{-3}}} \quad P = \frac{E}{C} = \frac{hf}{C} = \frac{h}{\lambda} \quad V = V_1(1 + \beta \Delta t) \quad U_{ef} = \frac{U_m}{\sqrt{2}} \quad f_0 = \frac{1}{2\pi \kappa L} \quad I = \frac{U_e}{R + R_i} \\
 I_m^2 &= U_m^2 \left[ \frac{1}{R^2} + \left( \frac{1}{X_c} - \frac{1}{X_L} \right)^2 \right] \quad X_L = \frac{U_m}{I_m} = \omega L = 2\pi f L \quad \vec{F}_m = \vec{B} I \ell = \frac{\mu_0 I_1 I_2}{2\pi d} \ell \quad \vec{F}_g = \frac{m_1 m_2}{r^2} \quad \sigma = \frac{Q}{A} \quad \psi_2 = U_e I t \\
 R &= R_0 \sqrt[3]{A} \quad E = mc^2 \quad E_k = \frac{h^2}{8mL^2} \quad h^2 \quad \beta = \frac{\Delta I_c}{\Delta I_s} \quad \rho = \frac{\vec{F}}{\Delta S} = \frac{m \Delta \vec{v}}{\Delta S \Delta t} \quad \vec{B} = \mu_0 \frac{NI}{\ell} \quad R = \rho \frac{\ell}{S} \quad M = \vec{F} d \cos \alpha \\
 M_0 &= \frac{4\pi^2 r^3}{3T^2} \quad v = \frac{w h}{8mL^2} \quad h^2 \quad \phi_e = \frac{L}{4\pi r^2} \quad S = \frac{U_{AB}}{\phi} = \frac{|E_{PA} - E_{PB}|}{\phi} = \left| \frac{V_A - V_B}{\phi} \right| \quad \ell_e = \ell_0(1 + d \Delta t) \quad F_h = S h p g \\
 F_d &= M_z \frac{v^2}{r} = M_z \frac{4\pi^2 r}{T^2} \quad \nabla \times \left( \frac{\partial \vec{B}}{\partial t} \right) = \frac{\partial}{\partial t} (\text{rot } \vec{B}) = -\mu_0 \frac{\partial}{\partial t} \left( \frac{\partial \vec{B}}{\partial t} \right) = \epsilon_0 \mu_0 \frac{\partial^2 \vec{E}}{\partial t^2} \quad f_0 = \frac{1}{2\pi} \sqrt{\frac{g}{L}} \\
 v_k &= \sqrt{\frac{R M_z}{R_z}} \quad F_x = \frac{1}{2} C_x \rho S v^2 \quad \vec{F}_x = \frac{1}{2} C_x \rho S v^2 \quad \vec{H} d \vec{\ell} = \int \left( \vec{J} + \frac{\partial \vec{D}}{\partial t} \right) \cdot d\vec{S} \quad \lambda = \frac{h m_0}{T} \quad L = 10 \log \frac{I}{I_0} \\
 F_v &= \int \frac{F_n}{R} \frac{1}{1 + \frac{1}{2} \frac{w}{a}} \frac{1}{-a/L} \quad E = \frac{E_c}{a} \int \sin(\omega t + \phi) dy \quad \vec{H} d \vec{\ell} = \int \left( \vec{J} + \frac{\partial \vec{D}}{\partial t} \right) \cdot d\vec{S} \quad F_g = G \frac{M_0 M_z}{r^2} \quad v = \frac{1}{\sqrt{\epsilon \cdot \mu}} = \frac{c}{\sqrt{\epsilon_r \cdot \mu_r}} \\
 \mu &= U_m \sin \omega(t - L) = U_m \sin 2\pi \left( \frac{t}{T} - \frac{x}{\lambda} \right) \quad E_k = \frac{1}{2} m v^2 \quad S = \frac{1}{A} \frac{dW}{dt} \quad \left( \frac{E_c}{E_0} \right)_{\parallel} = \frac{2 \cos \vartheta_1^i \cos \vartheta_2^t}{\cos(\vartheta_1^i - \vartheta_2^t) \sin(\vartheta_1^i + \vartheta_2^t)} \\
 \int \vec{E} d\vec{\ell} &= - \int \frac{\partial \vec{B}}{\partial t} \cdot d\vec{S} \quad E = k \frac{q_1 q_2}{r^2} \quad \vec{P} = \int \vec{D} d\vec{S} = A D \quad \left( \frac{E_c}{E_0} \right)_{\parallel} = \frac{2 \cos \vartheta_1^i \cos \vartheta_2^t}{\cos(\vartheta_1^i - \vartheta_2^t) \sin(\vartheta_1^i + \vartheta_2^t)} \\
 E &= \frac{E_c}{\rho_0} = k \frac{Q}{r^2} \frac{1}{C(s)} \quad \oint \vec{B} d\vec{\ell} = \mu \int \vec{J} d\vec{S} \quad f' = \frac{\rho_a \cdot \nu_a}{(\nu - 1)(\nu_a - \nu_a)} \frac{\nu_1}{x} + \frac{\nu_2}{x'} = \frac{\nu_2 - \nu_1}{\nu} \quad \vec{S} = \frac{1}{\mu_0} (\vec{E} \times \vec{B}) \\
 E_y &= E_0 \sin(kx - \omega t) \quad \beta = \frac{\nu_1}{\nu_2} (\alpha + \gamma) + \gamma \quad \phi = \frac{2\pi \sin^2 \gamma}{\lambda} \quad B_t = \sqrt{\epsilon_0 \mu_0} E_0 \sin(kx - \omega t)
 \end{aligned}$$

# Tables

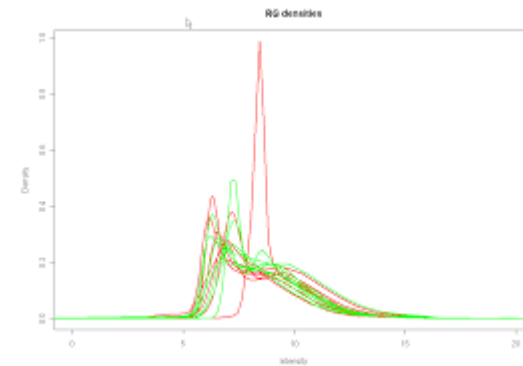
- Require a great deal of explanations
- $\Rightarrow$  Best to avoid them if you can!

	Robot A		Robot B			Robot C			
	Sensor X	Sensor Y	Sensor Z	Sensor X	Sensor Y	Sensor Z	Sensor X	Sensor Y	Sensor Z
Time to Start	10	15	18	12	14	20	5	8	17
Time to Finish	30	33	36	45	47	53	36	42	41
Time to Finish & Return	51	57	61	55	57	61	51	55	53

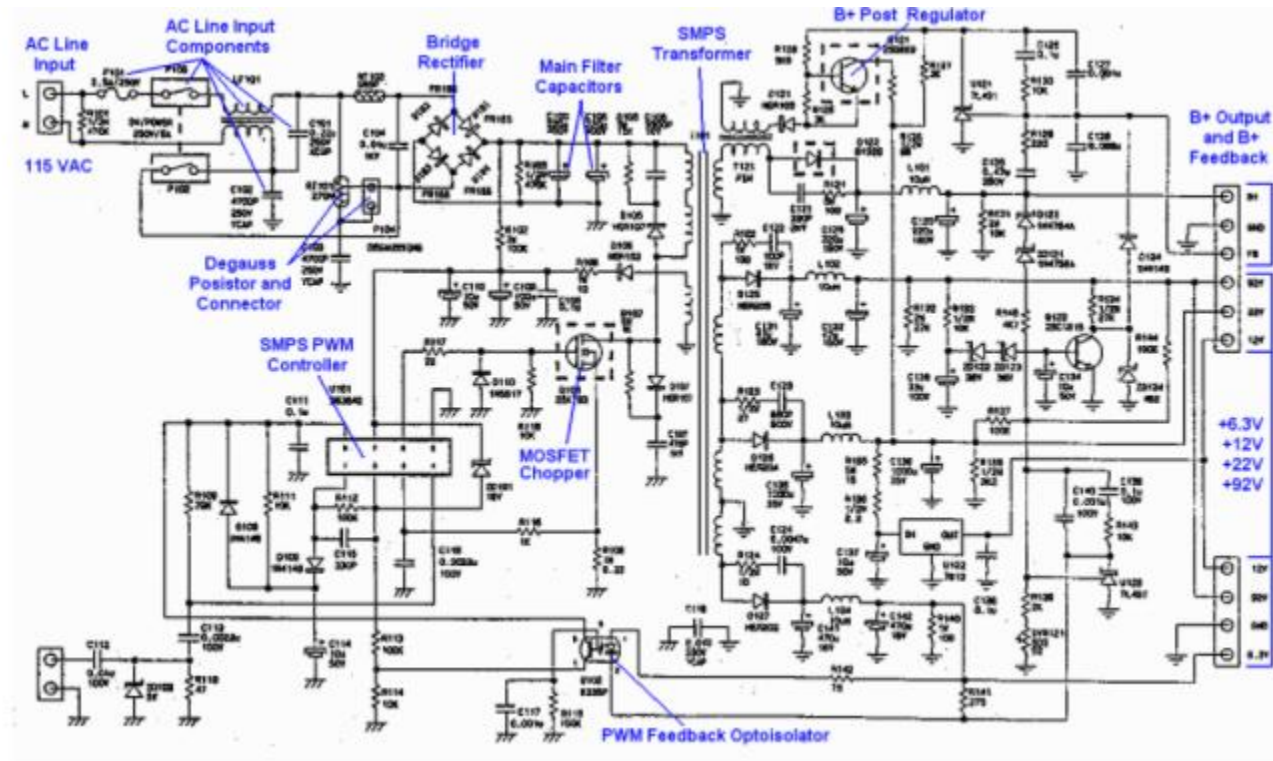


# Graphs

- Easy interpretation
- Pitfalls
  - Missing axis labels and/or legend
  - Missing units
  - Too small fonts
  - Too thin lines
  - Too many lines
  - Raster vs. vector graphics

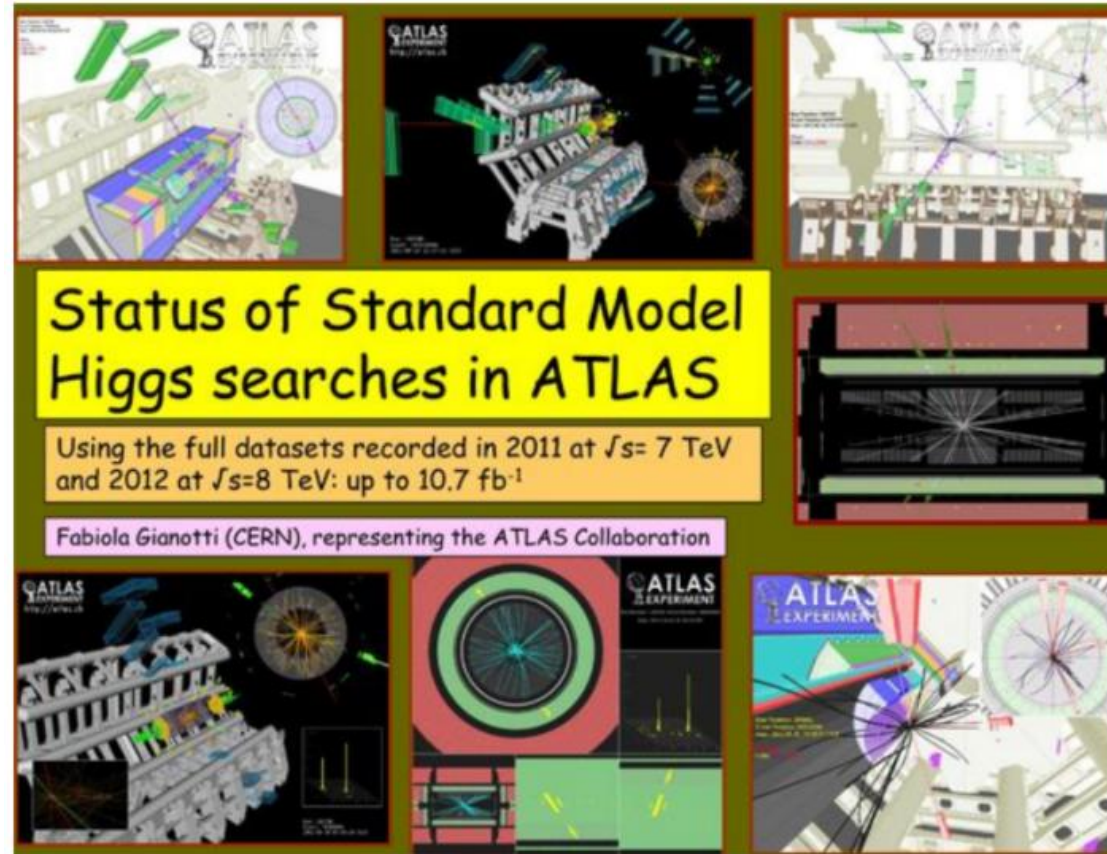


# Figures





# Figures - CERN example

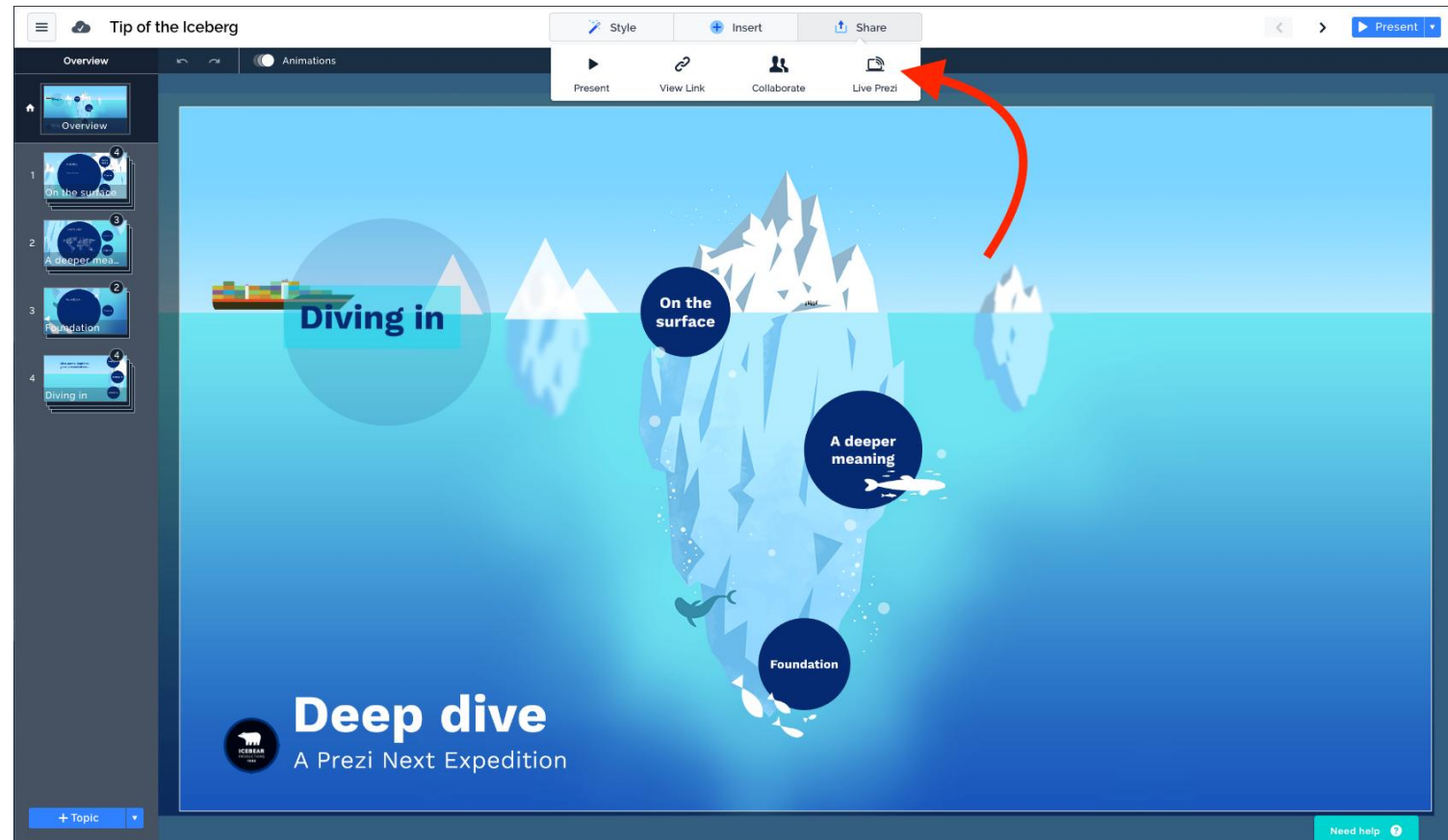


# Demo

- Rarely possible
  - But when you can... go for it!
- Adds authenticity
- Make super sure that it works!

# Tools

- PowerPoint or similar
- Prezi – [example](#)



# Inspiration

<http://www.ted.com>



[https://www.ted.com/talks/joseph\\_redmon\\_now\\_a\\_computer\\_learns\\_to\\_recognize\\_objects\\_instantly](https://www.ted.com/talks/joseph_redmon_now_a_computer_learns_to_recognize_objects_instantly)