

CS767: Non-Photorealistic Rendering

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Course Overview

- What is NPR?
- Syllabus and grading
- How to give a good presentation

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Course Overview

- Non-photorealistic rendering (NPR)
 - What is it?
 - Why do we care about it?
- Syllabus and grading
- How to give a good presentation

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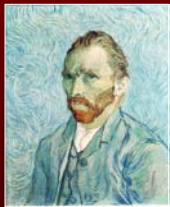
Photorealism in Painting



David 1800

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Non-Photorealism in Painting



Van Gogh 1889



Gris 1912



Kandinsky 1923

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Photorealistic Rendering







"Final Fantasy"
Square Soft 2001

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Non-Photorealistic Rendering (NPR)

 [Curtis 97]	 [Salisbury 97]
 [Hertzmann 98]	 [Kaplan 00]

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Why NPR?

- ➔ Provide Semantic Information
 - Guide Viewer's Eye
 - Add Emotional Content
 - Self Expression




Mitchell Hall
Stanford University

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Why NPR?

- Provide Semantic Information
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"The New Chair"
[Curtis 98]

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Why NPR?

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"The Curse of Monkey Island"
LucasArts

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Why NPR?

- Provide Semantic Information
- Guide Viewer's Eye
- Add Emotional Content
- ⇒ Self Expression



"Bedroom at Arles"
Van Gogh

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Why NPR?

- Commerce
- Education
- Entertainment
 - Games
 - Comic Books
 - Animation



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Course Overview

- What is NPR?
- ⇒ Syllabus and grading
 - What is a seminar?
 - Syllabus
 - Grading
- How to give a good presentation

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What is a seminar?

- *Active*, advanced learning experience
- Students much more responsible for class
 - Presentation
 - Discussion
 - Content
- Students make the seminar!

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Goals for *This* Seminar

Learn:

- More about graphics programming
- To read graphics papers
- More graphics concepts
- To clearly present/discuss technical ideas
- Greater appreciation for underlying art techniques

Project

Papers & Discussions

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Syllabus

- See list of papers on web page
- Organized mostly by topic
- Study questions posted to aid reading
- Open to suggestions

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Grading

Project = 60%

- 1 project during semester
- Groups of up to 3 students
- 10% Proposal (written)
- 5% Progress Reports (x2)
- 40% Final (results/presentation)
- Attendance at final presentations required

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Grading

Presentations = 40%

- 3 presentations but lowest grade dropped
- 20% for each presentation in final grade
- 30 minutes for talk, 10 minutes for Q&A
- Grades will be in the following form:
 - "0" - Failing grade
 - "1" - Acceptable but not particularly good presentation. Equivalent to B or B-
 - "2" - Good presentation. Equivalent to A.

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Grading

Presentations = 40%

Why is this useful for you?

- Forces you to understand at least 3 papers
- Clearly(!) presenting and discussing technical ideas is a valuable skill:
 - Good for researchers (i.e. grad students)
 - Good when you are looking for jobs

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Grading

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Grading

Presentations = 45%

- Presentations will be graded by both prof and students!
- At end of each talk, students will fill out forms...
 - Answering one or two questions on talk/paper
 - Giving speaker a grade on presentation
 - If listener gives good grade but can't answer questions: contradiction!

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Grading

- Speakers: Give a good talk! Don't bore your fellow students!
- Listeners: Be interested and ask questions!

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Grading

- Attendance is mandatory. Students who miss more than 3 lectures will receive failing grades.
- Please read the papers and participate!
- (Otherwise class will be agony for all)

Bottom line: It's up to you to keep class from being boring.

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- What is NPR?
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- ➔ How to give a good presentation

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Good Presentations: Major Topics

- What is the objective/contribution of this paper?
- Why is this important/useful?
- By what process does paper actually achieve this objective?
- How does it compare/relate to previous work? How is it better? (or worse?)
- If someone remembers only 1 thing from your talk, what should it be?

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Good Presentations: Sample Outline

- Introduction
- Motivations
- Previous Work
- Process Overview
- Results
- Summary and Conclusions

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Good Presentations:

- Use LOTS of images and animations
 - Famous paintings
 - Cartoons or animated movies
 - Other examples from pop culture
 - Images/videos from actual paper
- Explain important elements of the underlying style (if relevant)
- Explain equations (“intuitively, this means...”)

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Good Presentations: Important Details

- Don't run over time limit
- Don't go over *all* details, just important or confusing ones
- Practice! Practice! Practice!
- Give a talk that you would want to hear!

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Good Presentations

- It's okay to use original author's presentations if they are available on web (but please be honest and cite)
- See www.cs.berkeley.edu/~efros/research/quilting.html for example of good talk
- Hans Peter Pfister's guideline on web page
- Powerpoint template on course web page

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Good Presentations

- Must be done in either:
 - Powerpoint or equivalent software
 - Nicely formatted HTML
- Sign up for talks in class next Tuesday

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Your Title Here

Your Name Here

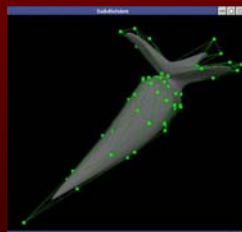
Slide Title

- Major Point 1
- Major Point 2
- Major Point 3
 - Subpoint 1
 - Subpoint 2
 - Subpoint 3

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Inserting Images

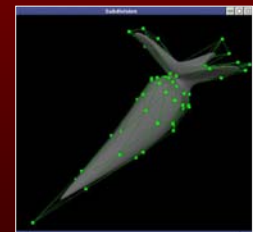
- Most images outlined in White



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Inserting Images

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Inserting Images

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Inserting Images

- Most images outlined in White
- White images outlined in Black
- Drop shadows are nice



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Inserting Images

- Most images outlined in White
- White images outlined in Black
- Drop shadows are nice
- Use captions



"Star" from Nobody et al.

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Inserting Images

- Most images outlined in White
- White images outlined in Black
- Drop shadows are nice
- Use captions
- If using sequence, line images up



"Star" from Nobody et al.

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Helpful Hints

- Keep text short!
- Don't put too much new info on one slide
- For complex ideas:
 - Build up to idea over multiple slides
 - Use images to convey idea!
- Use supplementary materials:
 - Videos
 - Art-historical texts
 - Etc.

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Helpful Hints

- Fancy transition animations/sound effects:
 - Both are distracting/annoying if used a lot
 - Can add emphasis if used sparingly
- Practice! Practice! Practice!
 - Speak slowly and clearly
 - Make eye contact
 - Give a test talk to your friends

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