Visual Foundations of HCI/d

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In Cooperation with

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Caveat

This syllabus is subject to change and amendment from time to time. Since this is a new format for this course, please expect changes as we go along.

Summary

I400/I590 Visual Foundations of HCI/d
I400 LEC 13407 6:15 p.m. 8:45 p.m. M I E150 Blevis E
I590 LEC 13448 6:15 p.m. 8:45 p.m. M I E150 Blevis E

This class puts the "d" (for design) in HCI/d (for human-computer interaction design). We will focus on foundational skills in visual literacy required of designers whose career plans include work at the intersection and confluence of HCI and design. Here, designers include interaction designers, experience designers, digital product designers, and digital strategic designers. Career plans include both practice and scholarship.

This is a team-based, project-based, studio style class. The deliverables take two forms.

One is the form of pictorial essays and associated presentations suitable for publication in competitive venues and as part of individual portfolios. Pictorials are nowadays an archival, reviewed form in high level HCI venues. Pictorials represent a designerly arena of contribution to the field and help to anchor the field in long standing design traditions.

In addition to pictorials, each team will contribute a working prototype suitable for installation or deployment at the Service Learning Partner site selected by that team. The default form of this prototype will be publicly available postcards showing sites then and now, with some link to interactive technologies. Other forms are possible. This prototype may be modest in its use of technologies, so that completing it is viable within the scope of the class. The prototype is part of the content of each team's pictorial.

Readings in the class will be selected from the growing body of pictorials published to date in these venues. In the class, elements of photography, typography, graphics, and production values are presented in a just-in-time learning environment prompted by the immediate needs of designers working on values-rich and materially-rich motivated project goals.

Service Learning Partners

In order to make a pictorial and presentation, you need to have good content that you and others care about. Michael Valliant and Megan Betz from the IU Service Learning Program and Sean Starowitz from the City of Bloomington have graciously agreed to work with us this semester to provide sites for our project teams. The City of Bloomington represented by Sean Starowitz is the client.

Sites

At 1.13.2020, the sites available to us are:
- Switchyard Park | resource:
  - https://bloomington.in.gov/parks/parks/switchyard-park
- People's Park | resource:
  - https://collections.libraries.indiana.edu/iubarchives/exhibits/show/studentdemonstrationsatiu/1968blackmarketfirepart1
- Trades District | resources:
  - https://bloomington.in.gov/trades/ /
  - https://bloomington.in.gov/neighborhoods/historic/showers
- Wylie House - Call and Response Project | resources:
  - crbeam@indiana.edu
  - https://www.facebook.com/events/wylie-house/call-and-response-reframing-the-wylie-house-through-the-arts/2533514343394436/
- Banneker Center | resources:
  - https://bloomington.in.gov/parks/facilities/banneker-community-center
  - *Note the historical neighborhood, for example the vacant Elks Lodge*
- The Courthouse Square | resources:
  - TBA

Additional Common Resources

- I Remember When – Bloomington
  - https://www.facebook.com/groups/192453480789186/
- Rails, Trains, Depots, Tunnels and Interurbans of Southern Indiana
  - https://www.facebook.com/groups/1666167727034130/
- MCPL Timeline
  - https://mcpl.info/resources/monroe-county-timeline
- History Center
  - https://monroehistory.org/
- Derek Ritchey is an expert on local history
  - https://bloomingtonthenandnow.wordpress.com

Responsibilities to Our Service Learning Partners

In order to have access to interesting sites and the time of people in the community, you also need to deliver something of value that serves the community. The pictorial report and working prototype are part of this value proposition. The pictorial and working prototype will also help you with your professional portfolio and other materials. In return, our service learning partners are providing you with their time and access to their facilities. You will be able to demonstrate your ability to work with and for a client, and also that you are able to contribute to a good, civic cause.

Calendar

January		February		March		April		May	
1	We	1	Sa	1	Su	1	We	1	Fr
2	Th	2	Su	2	Mo W7	2	Th	2	Sa
3	Fr	3	Mo W3	3	Tu	3	Fr	3	Su
4	Sa	4	Tu	4	We	4	Sa	4	Mo Exams
5	Su	5	We	5	Th	5	Su	5	Tu Week
6	Mo	6	Th	6	Fr	6	Mo W11	6	We
7	Tu	7	Fr	7	Sa	7	Tu	7	Th
8	We	8	Sa	8	Su	8	We	8	Fr
9	Th	9	Su	9	Mo W8	9	Th	9	Sa
10	Fr	10	Mo W4	10	Tu	10	Fr	10	Su
11	Sa	11	Tu	11	We	11	Sa	11	Mo
12	Su	12	We	12	Th	12	Su	12	Tu
13	Mo W1	13	Th	13	Fr	13	Mo W12	13	We
14	Tu	14	Fr	14	Sa	14	Tu	14	Th
15	We	15	Sa	15	Su	15	We	15	Fr
16	Th	16	Su	16	Mo Spring	16	Th	16	Sa
17	Fr	17	Mo W5	17	Tu Break	17	Fr	17	Su
18	Sa	18	Tu	18	We	18	Sa	18	Mo
19	Su	19	We	19	Th	19	Su	19	Tu
20	Mo MLK Jr. Day	20	Th	20	Fr	20	Mo W13	20	We
21	Tu	21	Fr	21	Sa	21	Tu	21	Th
22	We	22	Sa	22	Su	22	We	22	Fr
23	Th	23	Su	23	Mo W9	23	Th	23	Sa
24	Fr	24	Mo W6	24	Tu	24	Fr	24	Su
25	Sa	25	Tu	25	We	25	Sa	25	Mo
26	Su	26	We	26	Th	26	Su	26	Tu
27	Mo W2	27	Th	27	Fr	27	Mo W14	27	We
28	Tu	28	Fr	28	Sa	28	Tu	28	Th
29	We	29	Sa	29	Su	29	We	29	Fr
30	Th			30	Mo W10	30	Th	30	Sa
31	Fr			31	Tu			31	Su

Schedule

Studio Session Number	Lecture | examples	Service Learning Partner(s) SLP(s)	Breakout activity (preparation for the following weekly project)	Presentation, Deliverables
1	Introduction		Form teams, choose a site	
2	Seeing, *Design*-Photo-*Ethno*-Graphy (DPEG)	Introduction to Sites	DPEG Planning	Site Research
3	Post Cards & Digital Interactivities		Concept Relays	*Design*-Photo-*Ethno*-Graphy (DPEG) I
4	How to Present I		Presentation Planning	Post Cards I (or Other Interactive Forms)
5	-	Guest Judge	-	Summary Presentations
6	Annotating Photographs for Print and Interactive Media		Annotations Relays	Gallery
7	Behavioral Prototypes		What if?	Annotated Gallery
8	Appearance Prototypes		Meaning & Form cards	Post Cards & Other Interactive Prototypes I (Behavioral)
9	-	Guest Judge	-	Summary Presentations
10	Working Prototypes		Skills Exchange	Post Cards & Other Interactive Prototypes II (Appearance)
11	Pictorial Formats & inDesign		Pictorials Roundup	Post Cards & Other Interactive Prototypes III (Working)
12	Design Inspirations		Inspirations Game	Pictorial I
13	How to Prepare Final Presentations		Round Robin Critique	Pictorial II
14	-	Guest Judge	-	Final Presentations

Typical Session Organization

Part	Activity
Part One (1 hour, 30 minutes)	Group presentations (of prior week's project)
Part Two (30 minutes)	Lectures and related activities
Part Three (30 minutes)	Group break outs (start of weekly project for the following week)

The form of these classes as a pedagogical style is described in:

> Eli Blevis. 2010. Design challenge based learning (DCBL) and sustainable pedagogical practice. *Interactions* 17, 3 (May 2010), 64-69. DOI: https://doi.org/10.1145/1744161.1744176

Additional Opportunities to meet during Office Hours

Prof. Blevis: Tuesdays 2:00-4:00 PM, IW 200. Associate Instructors, by appointment.

Work Expectation

You are expected to dedicate 10 hours a week to this class. 2.5 hours are spent in class. Count on spending the remaining 7.5 hours meeting with your team or doing the work to contribute to your team. A good rule of thumb is to hold 2 * 1.25 hour team meetings per week, and work for 1 hour each week day on your individual contributions to your team's project.

Form of Typical Weekly Deliverables

Each week's deliverable must be submitted as a pdf file generated from inDesign—as few as one and as many as ten pages depending on the week. All of the class deliverables will be combined into a (PDF) binder, which will be made available to all. The intent is that teams may build on the work of others with proper attribution. The header must appear on each page in the form:

> <First Name><Last Name>, …, <First Name><Last Name>. <Year> (<MM.DD>). <Component Name>:<Title>. <Semester>. *Visual Foundations of HCI/d.* <page> of <pages>

For example:

> Hariprasad Chaurasia, Patricia Kopatchinskaja, Arianna Savall, and Sayaka Shoji. 2019 (10.22). Site Research: Switchyard Park Team. Spring. *Visual Foundations of HCI/d*. 1 of 4.

Grading

Weekly projects: 40%
Interim and Final Form Reports: 30%
Attendance & contribution: 20%
Compliance with third party materials policy: 10%

The contribution grade is based on the thoughtfulness of your comments and your support for the quality of the class as a whole. It is possible to receive a low grade for contribution if you try to dominate the discussions or otherwise demand undue attention.

Important Note about Third Party Materials

In this class, your use of third party materials must conform to ACM policy:

Third party material Fair use
https://www.acm.org/publications/authors/guidance-for-authors-on-fair-use

Sample permission request letter
https://www.acm.org/binaries/content/assets/publications/permissionsformtemplate.odt

The reason for this policy is to underscore the goal of producing professional quality, publishable work, as you will be expected to produce in real-world practice. In your professional career, you will be expected to adhere to copyright laws. It is also a matter of ethics and respect for the work of others.
Moreover, since this class emphasizes visual thinking, most of your evidence of such thinking must be your own original work.

Reference Formats

You must use ACM referencing formats: https://www.acm.org/publications/authors/reference-formatting

Reference Texts

Texts about Pictorials and Visual Foundations of HCI/d by the Instructor

Pictorial: Photography & Visual Ethnography
Shunying An Blevis, Eli Blevis, and Bonnie Nardi. 2019. All the Tea in China: Interaction Design Inspirations. In *Proceedings of the 2019 on Creativity and Cognition* (C&C '19). ACM, New York, NY, USA, 333-345. DOI: https://doi.org/10.1145/3325480.3326569

Pictorial: Photography & Visual Autoethnography
Eli Blevis and Shunying An Blevis. 2018. Design Inspirations from the Wisdom of Years. In *Proceedings of the 2018 Designing Interactive Systems Conference* (DIS '18). ACM, New York, NY, USA, 719-732. DOI: https://doi.org/10.1145/3196709.3196816

Paper: Photography & Sustainability
Eli Blevis. 2018. Seeing What Is and What Can Be: On Sustainability, Respect for Work, and Design for Respect. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA, Paper 370, 14 pages. DOI: https://doi.org/10.1145/3173574.3173944

Photographs: Sustainability
Eli Blevis. 2018. Photo Essay 1: Selfie Time. Photo Essay 2: Artifice and Nature. Photo Essay 3: Rooftop Garden. Photo Essay 4: Classroom Exercise. Photo Essay 5: Airstream. Photo Essay 6: Locked Gate. In Mike Hazas and Lisa Nathan (Eds.) *Digital Technology and Sustainability: Engaging the Paradox.* London and New York: Routledge, pp 1,14,67,125,185,234.

Pictorial: Photography & Cognition
Eli Blevis. 2017. Qualities of Focus. In *Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition* (C&C '17). ACM, New York, NY, USA, 309-322. DOI: https://doi.org/10.1145/3059454.3059485

Pictorial: Photographs & Curation
Eli Blevis. 2016. The Visual Thinking Gallery: A Five Year Retrospective. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems* (DIS '16). ACM, New York, NY, USA, 1096-1110. DOI: https://doi.org/10.1145/2901790.2901903

Paper: Photography & HCI
Eli Blevis. 2016. Being Photo-Visual in HCI and Design. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems* (DIS '16). ACM, New York, NY, USA, 983-995. DOI: https://doi.org/10.1145/2901790.2901863

Article: About Pictorials
Eli Blevis, Sabrina Hauser, and William Odom. 2015. Sharing the hidden treasure in pictorials. *interactions* 22, 3 (April 2015), 32-43. DOI: https://doi.org/10.1145/2755534

Pictorial: Sustainability
Eli Blevis. 2014. Stillness and motion, meaning and form. In *Proceedings of the 2014 conference on Designing interactive systems* (DIS '14). ACM, New York, NY, USA, 493-502. DOI: https://doi.org/10.1145/2598510.2602963

Article: About Photographs in HCI
Eli Blevis. 2011. Digital imagery as meaning and form in HCI and design: an introduction to the Visual Thinking Backpage Gallery. *interactions* 18, 5 (September 2011), 60-65. DOI: https://doi.org/10.1145/2008176.2008190

Reference Texts about HCI and Design

Bella Martin and Bruce Hannington. 2012. *Universal Methods of Design.* Beverly, MA: Rockport.

Donald A. Norman. 2019. The Four Fundamental Principles of Human-Centered Design and Application. *Essay*. JND.org (23 July 2019).

Huaxin Wei, Jeffrey C. F. Ho, Kenny K. N. Chow, Shunying An Blevis, and Eli Blevis. 2019. Should Do, Can Do, Can Know: Sustainability and Other Reflections on One Hundred and One Interaction Design Projects. In *Proceedings of the Fifth Workshop on Computing within Limits* (LIMITS '19). ACM, New York, NY, USA, Article 6, 18 pages. DOI: https://doi.org/10.1145/3338103.3338109

Representative Pictorials

This classification and selection is reproduced from https://dis.acm.org/2020/pictorials.html accessed 01.13.2020:

Some Pictorials focus attention on the visual elements and outcomes when such visuals "speak for themselves" as holders of design knowledge referenced in the text:

Nick Logler, Daisy Yoo, and Batya Friedman. 2018. Metaphor Cards: A How-to-Guide for Making and Using a Generative Metaphorical Design Toolkit. In Proceedings of the 2018 Designing Interactive Systems Conference (DIS '18). ACM, New York, NY, USA, 1373-1386. DOI: https://doi.org/10.1145/3196709.3196811

Audrey Desjardins, Ron Wakkary, and William Odom. 2016. Behind the Lens: A Visual Exploration of Epistemological Commitments in HCI Research on the Home. In Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16). ACM, New York, NY, USA, 360-376. DOI: https://doi.org/10.1145/2901790.2901910

Some Pictorials use photography as a primary means through which to make claims about how a key concept within HCI is understood:

Heather McKinnon. 2016. Finding Design Value in Modern Mundanity. In Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16). ACM, New York, NY, USA, 1059-1071. DOI: https://doi.org/10.1145/2901790.2901906

Eli Blevis. 2014. Stillness and motion, meaning and form. In Proceedings of the 2014 conference on Designing interactive systems (DIS '14). ACM, New York, NY, USA, 493-502. DOI: https://doi.org/10.1145/2598510.2602963

Some Pictorials use the visuals to communicate material knowledge to the community, and have embedded fabrication files to aid readers in the replication of the novel methods articulated:

Elvin Karana, Elisa Giaccardi, Niels Stamhuis, and Jasper Goossensen. 2016. The Tuning of Materials: A Designer's Journey. In Proceedings of the 2016 ACM Conference on Designing Interactive Systems (DIS '16). ACM, New York, NY, USA, 619-631. DOI: https://doi.org/10.1145/2901790.2901909

Clement Zheng, HyunJoo Oh, Laura Devendorf, and Ellen Yi-Luen Do. 2019. Sensing Kirigami. In Proceedings of the 2019 on Designing Interactive Systems Conference (DIS '19). ACM, New York, NY, USA, 921-934. DOI: https://doi.org/10.1145/3322276.3323689

Some Pictorials use the format to scaffold participatory activities with the reader that help them make sense of the arguments:

Jeroen Peeters and Ambra Trotto. 2018. Designing Expressions of Movement Qualities. In Proceedings of the 2018 Designing Interactive Systems Conference (DIS '18). ACM, New York, NY, USA, 679-690. DOI: https://doi.org/10.1145/3196709.3196805

Some Pictorials experiment with alternative rhetorical forms, such as photographs, diagrams, maps, or archival images and texts to both situate the work and make key points within the argument:

Vera Khovanskaya and Phoebe Sengers. 2019. Data Rhetoric and Uneasy Alliances: Data Advocacy in US Labor History. In Proceedings of the 2019 on Designing Interactive Systems Conference (DIS '19). ACM, New York, NY, USA, 1391-1403. DOI: https://doi.org/10.1145/3322276.3323691

James Pierce and Carl DiSalvo. 2017. Projecting Network Anxieties with Alternative Design Metaphors. In Proceedings of the 2017 Conference on Designing Interactive Systems (DIS '17). ACM, New York, NY, USA, 1383-1393. DOI: https://doi.org/10.1145/3064663.3064795

Additional Important Information

Accommodations & Feedback

We welcome your feedback. We will do our best to accommodate specific requests if they are reasonable and have merit.

Academic Misconduct

The class is morally and procedurally bound by IU's policies on academic misconduct, the details of which you can read about at the following website: www.indiana.edu/~code/code/index.shtml

Religious Observance

In accordance with the Office of the Dean of Faculties, any student who wishes to receive an excused absence from class must submit a request form available from the Dean of Faculties for each day to be absent. This form must be presented to the course professor by the end of the second week of the semester. A separate form must be submitted for each day. The form must be signed by the instructor, with a copy retained by instructor, and the original returned to the student. Information about the policy on religious observance can be found here: www.indiana.edu/~vpfaa/holidays.shtml

English

If English is not your native language or you are otherwise shy about speaking in class, please do not worry. You will not be penalized in any way for making contributions to the class in less than perfect English or for taking time to compose your answers. You are welcome to say what you want to say in your language of choice first and then ask for help from others to translate to English. I will frequently emphasize to the class the need for all of us to be supportive of each other when it comes to contributing to the discussions. There is no need to feel rushed when responding to questions in class—an important part of the class is the construction of a feeling of community with the faculty and your peers.

Important Notice

As your instructor, one of my responsibilities is to help create a safe learning environment on our campus. Title IX and our own Sexual Misconduct policy prohibit sexual misconduct. If you have experienced sexual misconduct, or know someone who has, the University can help. I encourage you to visit http://stopsexualviolence.iu.edu/ to learn more. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with a Mental Health Counselor on campus (contact information available at http://stopsexualviolence.iu.edu/employee/confidential.html).

It is also important that you know that federal regulations and University policy require me to promptly convey any information about potential sexual misconduct known to me to our Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, they will work with a small number of others on campus to ensure that appropriate measures are taken and resources are made available to the student who may have been harmed. Protecting a student's privacy is of utmost concern, and all involved will only share information with those that need to know to ensure the University can respond and assist.