

I561 Spring 2021 Sections 31830 & 31831

## Design Studio: Meaning & Form in HCI/d

*Special Themes: Retail 2027, Campus Residence to City Resident*



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## **Notice**

Syllabus Subject to Change

INFO-I 561 Meaning and Form In HCI/d (3.0)

31830 RSTR 08:00P-10:30P W I E150 Blevis E

31831 RSTR 08:00P-10:30P R I E150 Blevis E

## **Themes**

There are two team based interaction design/experience design/strategic design projects according to two perspectives on our suggested special theme:

- a) Retail 2027: Customer Perspectives
- b) Retail 2027: Operations Perspectives

We also have another special theme, namely Transitioning from Campus Residence to City Resident—to be discussed in class. Additional details about the scope of these projects will be shared in class. Individual teams may propose alternatives to the suggested special theme in accordance with their interests. Expect to have a digital interactive component in all projects.

## **Structure of the Sections**

There are two sections and we will be asking students to distribute evenly across the two sections in order to keep the team sizes manageable. Your cooperation and good will in this is deeply appreciated. Teams will be assigned, keeping inclusivity and diversity in mind inasmuch as possible.

## **Structure of Consultation Week Classes**

20:00-20:50 Lecture/Discussion/Logistics/Presentations

20:50-21:00 Break

21:00-22:20 Team Consultation A/Team Meetings BCD

22:20-22:40 Team Consultation B/Team Meetings CDA

22:40-22:50 Break

22:50-23:10 Team Consultation C/Team Meetings DAB

23:20-23:30 Team Consultation D/Team Meetings ABC

22:30-22:40 Closing remarks

The order of Consultations rotates each week. In sections with 5 teams, we have

21:00-21:15 Team Consultation A/Team Meetings BCDE

21:15-21:30 Team Consultation B/Team Meetings BCDA

21:30-21:45 Team Consultation C/Team Meetings DABE

21:45-12:55 Break

21:55-22:10 Team Consultation D/Team Meetings ABCE

22:10-22:25 Team Consultation E/Team Meetings ABCD

22:30-22:40 Closing remarks

Consultations: The team(s) present and discuss their projects with the Consultants—sometimes the instructors and sometimes the adjudicator.

### **Form of Deliverables**

These are always a minimalist slide set (PDF) with emphasis on:

- a) accessibility
- b) original, authentic visual forms
- c) everything essential, nothing inessential
- d) clear and professional in every detail

Expect to commit 10 hours per week including class time to this class—no more, no less. In past years, many student teams have made short videos in addition to slidesets. This is welcome and highly recommended, although not strictly required.

### **Grading**

40% Project Retail 2027: Customer Perspectives

40% Project Retail 2027: Operations Perspectives

20% Community spirit, attendance, and participation

All images in this syllabus © Eli Blevis, 2020.

### **Important Special Note: Course Modality**

Please read all of these instructions carefully.

Please do not attend class in-person if you feel unwell or unsafe in any way or for any reason. You do not need to state a reason. Physician's notes are not required. Attending by Zoom is equivalent to attending in person for the purposes of evaluation in all ways.

This applies to the instructors and guests as well as all participants.

In the event that neither instructor is physically present for a particular class, one of the participants in attendance should set up the equipment so that everyone in I150 and everyone on Zoom can meet together.

For all in attendance in-person, if any person in the space is not observing social distancing or face covering or any safety rules, all should leave the space immediately without confrontation of any kind and report the incident according to the instructions in the section title Safety towards the end of this document.

The first class on February 10<sup>th</sup> (31830) and February 11<sup>th</sup> (31831) will meet entirely by Zoom, so that we can discuss these plans and be sure that everyone understands and commits to compliance.

### **Wellness Days**

Tuesday, Feb 16

Wednesday, Mar 24

Thursday, Apr 22

## Weekly Schedule

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### Week 1

Lecture/Discussion/Logistics:

**Introductions, Teams, Readings, Sources, Authenticity, Predispositions**

Consultations:

Instructors

Readings (to be completed before class):

Eli Blevis. 2021. Three Key Competencies and Other Frameworks for HCI and Design Education. IU Scholarworks.

<http://hdl.handle.net/2022/26048>

Studio Work:

Illustrated predispositions defining design space chosen theme

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### Week 2

Lecture/Discussion/Logistics:

**P1 PRICPS + Should do, Can do, Can know, & Forms**

Consultations:

Instructors

Readings (to be completed before class):

Jamie Steane, Jo Briggs \*, and Joyce Yee. 2020. T-shifting identities and practices: Interaction designers in the fourth industrial age. *International Journal of Design*, 14(3), 85-96.

Studio Work:

Illustrated predispositions defining design space for chosen theme;  
Should do, Can do, Can know, Forms (SDCDCKF)

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### Week 3

Lecture/Discussion/Logistics:

**P1 Design Research Methods: Research, Literature, & Collections**

Consultation Presentations:

**Adjudicator**

Readings (to be completed before class):

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)*. Association for Computing Machinery, New York, NY, USA, Article 6, 1–18.

Studio Work:

Competitive intelligence design research for chosen theme;  
Semantic Differentials

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#### **Week 4**

Lecture/Discussion/Logistics:

##### **P1 Insights and Concepts**

Consultation Presentations:

Instructors

Readings (to be completed before class):

Christy Reed, Hui When Wang, and Eli Blevis. 2005. Recognizing Individual Needs and Desires in the Case of Designing an Inventory of Humanity-Centered, Sustainability-Directed Concepts for Time and Travel. *DPPI 2005 Designing Pleasurable Product Interfaces*. Eindhoven, The Netherlands. (32 pages).

Studio Work:

Concept Relays

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#### **Week 5**

Lecture/Discussion/Logistics:

##### **P1 Concepts and Prototypes**

Consultation Presentations:

Instructors

Readings (to be completed before class):

Optional: Anthony Dunne and Fiona Raby. *Speculative everything: design, fiction, and social dreaming*. MIT press, 2013.

Ron Wakkary, Audrey Desjardins, Sabrina Hauser, and Leah Maestri. 2013. A sustainable design fiction: Green practices. *ACM Trans. Comput.-Hum. Interact.* 20, 4, Article 23 (September 2013), 34 pages. <https://doi.org/10.1145/2494265>

Studio Work:

Design Fiction Prototypes (may include Web or App design)

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#### **Week 6**

Lecture/Discussion/Logistics:

##### **P1 Strategies**

Consultation Presentations:

Instructors

Readings (to be completed before class):

Harold A. Linstone. 1981. The multiple perspective concept: With applications to technology assessment and other decision areas. *Technological Forecasting and Social Change* 20, no. 4 (1981): 275--325

Studio Work:

Multiple Perspectives Analysis

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## Week 7

### P1 Presentations

Moderator:

Instructors

Critique:

**Adjudicator**

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## Week 8

Lecture/Discussion/Logistics:

### P2 Stakeholder Analysis

Consultations:

Instructors

Readings (to be completed before class):

Daisy Yoo. 2017. Stakeholder Tokens: A Constructive Method for Value Sensitive Design Stakeholder Analysis. In Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems (DIS '17 Companion). Association for Computing Machinery, New York, NY, USA, 280–284.

<https://doi.org/10.1145/3064857.3079161>

Studio Work:

Stakeholder analysis

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## Week 9

Lecture/Discussion/Logistics:

### P2 Design Research Methods: Curation

Consultation Presentations:

**Adjudicator**

Readings (to be completed before class):

Nic Lupfer. 2019. Collaborative Design Curation: Supporting Creativity in Teams. In Proceedings of the 2019 on Creativity and Cognition (C&C '19). Association for Computing Machinery, New York, NY, USA, 691–696. <https://doi.org/10.1145/3325480.3326562>

Studio Work:

Design curation research





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## Week 10

Lecture/Discussion/Logistics:

### P2 Insights and Concepts

Consultation Presentations:

Instructors

Readings (to be completed before class):

Youn-kyung Lim, Justin Donaldson, Heekyoung Jung, Breanne Kunz, David Royer, Shruti Ramalingam, Sindhia Thirumaran, and Erik Stolterman. "Emotional experience and interaction design." In *Affect and emotion in human-computer interaction*, pp. 116-129. Springer, Berlin, Heidelberg, 2008.

Studio Work:

Affective interactions

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## Week 11

Lecture/Discussion/Logistics:

### P2 Concepts and Prototypes

Consultation Presentations:

Instructors

Readings (to be completed before class):

Mark Blythe, Kristina Andersen, Rachel Clarke, and Peter Wright. 2016. *Anti-Solutionist Strategies: Seriously Silly Design Fiction*. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, 4968–4978. <https://doi.org/10.1145/2858036.2858482>

Studio Work:

Storyboard scenarios (may include Web or App design)

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## Week 12

Lecture/Discussion/Logistics:

### P2 Strategies

Consultation Presentations:

Instructors

Readings (to be completed before class):

B. Bowonder. 1987. Integrating perspectives in environmental management. *Environmental management*, 11(3), pp.305-315.

Tim Brown and Barry Katz. "Change by design." *Journal of product innovation management* 28, no. 3 (2011): 381-383.

Optional: Tim Brown and Barry Katz. *Change by design: how design thinking transforms organizations and inspires innovation*. Vol. 20091. HarperBusiness, 2019.

Studio Work:

Design plan

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**Week 13**

**P2 Presentations**

Moderator:

Instructors

Critique:

**Adjudicator**



### Required Texts

Eli Blevis. 2021. Three Key Competencies and Other Frameworks for HCI and Design Education. IU ScholarWorks. <http://hdl.handle.net/2022/26048>

Mark Blythe, Kristina Andersen, Rachel Clarke, and Peter Wright. 2016. Anti-Solutionist Strategies: Seriously Silly Design Fiction. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, 4968–4978. <https://doi.org/10.1145/2858036.2858482>

B. Bowonder. 1987. Integrating perspectives in environmental management. *Environmental management*, 11(3), pp.305-315.

Tim Brown and Barry Katz. "Change by design." *Journal of product innovation management* 28, no. 3 (2011): 381-383.

Youn-kyung Lim, Justin Donaldson, Heekyoung Jung, Breanne Kunz, David Royer, Shruti Ramalingam, Sindhia Thirumaran, and Erik Stolterman. "Emotional experience and interaction design." In *Affect and emotion in human-computer interaction*, pp. 116-129. Springer, Berlin, Heidelberg, 2008.

Harold A. Linstone. 1981. The multiple perspective concept: With applications to technology assessment and other decision areas. *Technological Forecasting and Social Change* 20, no. 4 (1981): 275–325

Nic Lupfer. 2019. Collaborative Design Curation: Supporting Creativity in Teams. In *Proceedings of the 2019 on Creativity and Cognition (C&C '19)*. Association for Computing Machinery, New York, NY, USA, 691–696. <https://doi.org/10.1145/3325480.3326562>

Jamie Steane, Jo Briggs \*, and Joyce Yee. 2020. T-shifting identities and practices: Interaction designers in the fourth industrial age. *International Journal of Design*, 14(3), 85-96.

Christy Reed, Hui When Wang, and Eli Blevis. 2005. Recognizing Individual Needs and Desires in the Case of Designing an Inventory of Humanity-Centered, Sustainability-Directed Concepts for Time and Travel. *DPPI 2005 Designing Pleasurable Product Interfaces*. Eindhoven, The Netherlands. (32 pages).

Ron Wakkary, Audrey Desjardins, Sabrina Hauser, and Leah Maestri. 2013. A sustainable design fiction: Green practices. *ACM Trans. Comput.-Hum. Interact.* 20, 4, Article 23 (September 2013), 34 pages. <https://doi.org/10.1145/2494265>

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)*. Association for Computing Machinery, New York, NY, USA, Article 6, 1–18.

Daisy Yoo. 2017. Stakeholder Tokens: A Constructive Method for Value Sensitive Design Stakeholder Analysis. In Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems (DIS '17 Companion). Association for Computing Machinery, New York, NY, USA, 280–284.  
<https://doi.org/10.1145/3064857.3079161>

#### **Optional Texts**

Optional: Tim Brown and Barry Katz. *Change by design: how design thinking transforms organizations and inspires innovation*. Vol. 20091. HarperBusiness, 2019.

Optional: Anthony Dunne and Fiona Raby. *Speculative everything: design, fiction, and social dreaming*. MIT press, 2013.

## Additional Resources

### About the HCI and Design Literatures

Since HCI and Design are dynamic areas of scholarship and practice, there is not a strict canon of classic literature that one can read, once and for all. It is better to read current sources and to keep reading throughout your career. I suggest allotting 2 hours a day to reading from the sources described below and others in addition to the curricular content.

### Places to Look First

Check these first:

```
https://dl.acm.org/  
https://www.semanticscholar.org/  
https://scholar.google.com/
```

### Places to Browse: ACM Best Papers List

One strategy is to be sure to read the best papers listed here:

```
Jeff Huang's List of Best Papers
```

### ACM Exemplary Papers

Each of the ACM conferences lists exemplary papers. I recommend looking at these exemplary papers which are constantly being updated in order to be sure your reading about HCI is up to date. ACM SIGCHI conferences are listed here:

```
https://sigchi.org/conferences/upcoming-conferences/
```

### ACM CHI Exemplary Papers by Thematic Areas

ACM CHI conference papers are grouped by thematic areas called subcommittees that represent a broad view of HCI. Check each of the links to see the exemplary areas for each subcommittee:

- \* User Experience and Usability
- \* Specific Applications Areas
- \* Learning, Education, and Families
- \* Interaction Beyond the Individual
- \* Games and Play
- \* Privacy and Security
- \* Visualization
- \* Health
- \* Accessibility and Aging
- \* Design
- \* Interaction Techniques, Devices, and Modalities
- \* Understanding People: Theory, Concepts, Methods
- \* Engineering Interactive Systems and Technologies
- \* Critical and Sustainable Computing
- \* Computational Interaction

### **Technology in Practice**

In some ways, keeping up with the technology and other sections of major high integrity new sources is the best way to be current. It is important to triangulate these readings—that is, to read from a great variety of sources in order to see what is important to different constituencies. Notwithstanding, reliable and high integrity sources are key. Here is a list:

- \* Technology Section of The Economist
- \* Technology Section of the New York Times
- \* Technology Section of the Guardian
- \* Technology Section of Reuters
- \* Technology Section of the Atlantic
- \* Technology Section of NPR
- \* Technology Section of the Wall Street Journal
- \* Technology Section of the Washington Post
- \* Technology Section of the BBC

### **Pictorials**

At the intersection of HCI and Design are pictorials. These are a good source for design inspirations that bridge between scholarship and practice:

- \* C&C 2017, 2019
- \* DIS 2014 to 2019
- \* TEI 2020

### **Additional Details about Grading**

Note that there is no specific grade for attendance. You may attend by Zoom or in-person. If you are unwell or suspect you may be unwell, do not attend in-person. Attending by Zoom or attending in-person count the same apropos of the participation grade.

*As a matter of ensuring that all voices are heard*, I will call on participants in a random but systematic order to present, comment, or ask questions. If you attend regularly and learn the names of all participants because you have listened to them carefully as well as having thoughtful things to say yourself, your participation grade should be high.

The standard for an A grade is excellence. The standard for an A+ grade is publishable and professional in every detail.

### **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>

### **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.

### **Masks and Physical Distancing Requirements**

All students signed the Community Responsibility Acknowledgement (CRA). Your agreement to the public health measures in the CRA is a condition of physical presence on the campus this fall. Included in that commitment were requirements for wearing masks in all IU buildings and maintaining social distancing in all IU buildings. Both are classroom requirements.

Both requirements are necessary for us to protect each other.

- Therefore, if a student is present in a class without a mask, the student will be asked to put on a mask and I will report the student to the Division of Student Affairs: Office of Student Conduct.
- If a student refuses to put a mask on after being instructed to do so, the instructor may end the class immediately, and contact the Office of Student Conduct. Violation of the mask rule is a threat to public safety within the meaning of the [Summary Suspension Policy](#) .
- If a student comes to class without a mask twice, the student's final grade will be reduced by one letter (e.g., from an A to a B, for instance).
- If the student comes to class without a mask three times, the student will be withdrawn from the class without refund of tuition and reported to the Office of Student Conduct.
- If Student Conduct receives three cumulative reports from any combination of instructors or staff members that a student is not complying with the requirements of masking and physical distancing, the student will be summarily suspended from the university for the semester.

### **Student Rights**

Any student who believes another person in a class is threatening the safety of the class by not wearing a mask or observing physical distancing requirements may leave the class without consequence.

### **Attendance**

The CRA requires that you take your temperature every morning and that you refrain from attending class if you have a temperature of 100.4 or other symptoms of illness. In order to ensure that you can do this, attendance will not be a factor in the final grade. Attendance may still be taken to comply with accreditation requirements.

### **Summary Suspension Policy**

"A student may be summarily suspended from the university and summarily excluded from university property and programs by the Provost or designee of a university campus. The Provost or designee may act summarily without following the hearing procedures established by this section if the officer is satisfied that the student's continued presence on the campus constitutes a serious threat of harm to the student or to any other person on the campus or to the property of the university or property of other persons on the university campus."



### **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](http://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](http://www.indiana.edu/~vpfaa/holidays.shtml)

### **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.

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