

CTIN 542

Interactive Design and Production II: Critical Prototyping

USC School of Cinematic Arts
Interactive Media and Games Division

Spring 2020 - 4 Credits

Location: SCI L114

Professor: Jeff Watson

TA: Elle Linares

Co-requisite: CTIN-548

This studio course is restricted to students in the second year of the MFA program in Interactive Media and Games at the USC School of Cinematic Arts.

Course description

CTIN-542 is a *critical prototyping* class in which students will prototype, iterate, and reflect on their emerging thesis projects and the technologies they entail. This work will be done through in-class ideation and prototyping activities, solo design challenges, group “crits,” written reflection and documentation, and presentations.

Central to CTIN-542 is the idea that prototyping is much more than an instrumental activity designers do exclusively so as to “test” or “demo” their concepts. As we will explore, prototyping can do many things for the designer, including assisting in the generation and assessment of new ideas, facilitating the gathering of feedback from users or players, and creating actionable understandings of the technical, social, and political implications of a design concept. In the context of a long-term interactive media project like a thesis, prototyping can also serve many important purposes even once a concept is “locked down,” helping designers to solve problems and grapple with the meanings and possibilities latent in the technologies they employ and the situations they invoke.

Simply put, this is a class about defining and advancing your thesis project, and expanding your capabilities as a creator, by getting your hands dirty and *making stuff*. You will be challenged to do this at high speed—and sometimes at a professional level of polish. You will be asked to think hard about what you’re doing and why you’re doing it. Most of all, you will be asked to remain imaginatively and intellectually open even as (indeed, *especially* as) you embark on the creative journey that is your thesis project.

A Note on the Co-Requisite

Portions of this class are synchronized with its co-requisite, *CTIN-548: Preparing the Interactive Project*. Generally speaking, where 542 is a prototyping or “design thinking” class revolving around the development of the thesis project, 548 more squarely focuses on pitching, scheduling, team-building, and problem solving. That is, this class, 542, is a class where you *make*, whereas 548 is a class where you *plan*. These two classes speak to each other in many ways, and are meant to provide a full spectrum of ideation, pre-production, and development opportunities. Certain deliverables in 542, such as the *Midterm Pitch Prototype* and *Thesis Project Vertical Slice* assignments (described below), will directly map to deliverables students will prepare for 548. Other assignments and activities will more informally cross-pollinate with 548 and other elements of the curriculum. Students are encouraged to take what they learn and make here into all their other classes, and vice-versa.

Learning objectives

Students will emerge from CTIN-542 with:

- Practical experience in prototype-driven modes of ideation, project development, and critical reflection;
- Familiarization with key frameworks in design practice related to themes such as design thinking, critical making, speculative design, and project-based learning;
- An expanded portfolio; and,
- A paper trail of project documentation and written critical reflection focused on the evolution of a thesis concept.

Required readings

Each student will be required to deliver a short presentation on one of the readings listed toward the end of this document. See “Mini-Talk” in Assignment descriptions/Other assignments below for details.

Assignments and grading breakdown

Deliverable	Description	Due Date(s)	%
Prototypes (x6)	Prototypes (digital and analog) responding to prompts related to various stages of thesis development. Each prototype counts only if both demoed <i>and</i> documented. You	Due dates throughout the semester (see schedule below)	80

	will not receive a score if you do not submit your documentation on time.		
Mini-talk	A brief presentation pairing one of the readings in the class reading list with a reading of your own choosing.	Mini-talk dates selected in first class	10
Participation	Participation in class discussions and crits.	N/A	10

Attendance policy

Punctual attendance at all classes is mandatory—no exceptions! Please email me at remotedevice@gmail.com if you absolutely *must* miss a session. Many of the activities we will be engaging in during class time, especially our crit sessions, will require the presence of the full class. Being late or absent can let the whole group down. Accordingly, we will be taking attendance at the beginning of each class meeting. Any unexcused absence will result in a 5 percent deduction from your participation grade; any more than two unexcused absences will result in an F.

Assignment submission policy

Prototyping assignments will be presented by students during class on the day they are due, unless otherwise specified. Due to the serial nature of this class, it will likely not be possible for you to make up for missed assignments. If you have a serious conflict that will prevent you from presenting or submitting an assignment on time, please contact me at remotedevice@gmail.com at least a week in advance of the due date.

Course schedule

#	Date	In-Class/Studio and Assignments	Due
PART I: Discovery, Interpretation, and Ideation			
1	Jan-14	Introduction to the course Mini-talk date selections Activity (100 minutes): “Design Games” Assigned: <i>Not-thesis</i> (due Jan 21, 28)	
2	Jan-21	Crit best practices discussion Crit session: <i>Not-thesis</i>	<i>Not-thesis</i> prototype
3	Jan-28	Mini-talk block 1 Activity (50 minutes): “Social Studies” Activity (50 minutes): “Want Ads” Assigned: <i>Wanted</i>	<i>Not-thesis</i> documentation
4	Feb-4	Crit session: <i>Wanted</i>	<i>Wanted</i> prototype
5	Feb-11	Mini-talk block 2 Assigned: <i>Midterm Pitch Prototype</i> Activity (120 minutes): “Physical Prototyping Sprint”	<i>Wanted</i> documentation * Today is the deadline for identifying the concept you are going to develop for your thesis.
6	Feb-18	Mini-talk block 3	

		Activity (60 minutes): “Speculative Design” Studio time for <i>Midterm Pitch Prototype</i>	
7	Feb-25	Crit session: <i>Midterm Pitch Prototype</i>	<i>Midterm Pitch Prototype</i> prototype
	Feb-27	548: Midterm Pitch Presentations	
PART II: Experimentation and Evolution			
8	Mar-5* * class time and location is swapped with CTIN-548 on March 3 and 5.	Mini-talk block 4 Activity (60 minutes): “User Case Scenario” Assigned: <i>Core Mechanic Technology Study</i> Midterm student consultations	<i>Midterm Pitch Prototype</i> documentation
9	Mar-10	Mini-talk block 5 Activity (60 minutes): “Point of Origin” Midterm student consultations	
10	Mar-17	S P R I N G B R E A K	
11	Mar-24	Crit session: <i>Core Mechanic Technology Study</i> Assigned: <i>Sensory Study</i>	<i>Core Mechanic Technology Study</i> prototype <i>Core Mechanic Technology Study</i> documentation
12	Mar-31	Crit session: <i>Sensory Study</i> Assigned: <i>Thesis Project Vertical Slice</i>	<i>Sensory Study</i> prototype <i>Sensory Study</i> documentation

PART III: Communication			
13	Apr-7	Mini-talk block 6 Activity (30 minutes): “Included and Excluded” <i>Thesis Project Vertical Slice</i> individual check-ins Studio time	
14	Apr-14	Guest lecture: <i>Jeff will be away.</i> Studio time	
15	Apr-21	Mini-talk block 7 <i>Thesis Project Vertical Slice</i> individual check-ins Studio time	<i>Thesis Project Vertical Slice</i> work-in-progress
16	Apr-28	Crit session: <i>Thesis Project Vertical Slice</i> Course conclusion	<i>Thesis Project Vertical Slice</i> prototype <i>Thesis Project Vertical Slice</i> documentation
	Apr-30	548: Final Pitch Presentations	

Assignment descriptions

Listed below are capsule descriptions of each assignment that you will be responsible for completing in this class. Some assignments will include special instructions not listed here; the descriptions below are provided to assist in your scheduling and give you a clearer sense of the course's trajectory. As necessary, additional details will be provided when assignments are announced in class.

Prototype and Documentation Assignments (x6, 80 percent of final grade)

Each of the following assignments requires you to a) make something; and b) document your making process and the feedback you receive during your crit. Always be prepared to ask the class specific questions during your crit. The prototypes and documentation you produce here will be useful to you in many ways, up to and including providing content and context for the written portion of your final thesis submission.

Not-thesis

Type: Prototype and documentation (1/6)

Design time allotted: 1 week

Grade value: 10%

Assigned: January 14

Prototype Due Date: January 21

Documentation Due Date: January 28

Themes and keywords: ideation, creative methods, design thinking

Using formal and conceptual constraints established in class during our introduction to ideation methods, this “blue sky” challenge tasks you with producing a feature-complete fully playable digital interactive/game at maximum polish in just one week, by yourself. As you will see, this project is unlike most of the others in this class: it is intentionally framed to have as little as possible to do with what you think your thesis might be. That is, *Not-thesis* challenges you to do something small (ie, a project you can build and polish in 12 hours or less) that you do *not* expect to pursue any further. In part, this assignment is here to provide you with a safe creative context where you can experiment with certain ideation and project definition methods that will help you as you develop your thesis proper. But it can also reveal more about your thesis itself, by way of absence and implication. By learning more about what you're *not* interested in in terms of a long-term thesis project, we hope you'll gain fresh insights into what you *are* interested in, what matters most, and what you simply cannot do without as a creator. And who knows? Maybe you'll uncover a hidden gem...

Wanted

Type: Prototype and documentation (2/6)

Design time allotted: 1 week

Grade value: 10%

Assigned: January 28

Prototype Due Date: February 4

Documentation Due Date: February 11

Themes and keywords: ideation, audience, constraints, framing, player-centric design

This prototyping assignment asks you to envision and respond to the desires of actual and imagined players through the lens of your own values and designerly commitments. By combining a Craigslist-style “want ad” generated during an in-class exercise with material from a personal vision-oriented exercise, you will be asked to conceptualize and produce a feature-complete, fully-playable digital prototype. Once again, time is short, and you must scope accordingly.

Midterm Pitch Prototype

Type: Prototype and documentation (3/6)

Design time allotted: 2 weeks, plus portions of class time on February 11th and 18th

Grade value: 15%

Assigned: February 11

Prototype Due Date: February 25

Pitch Due Date (CTIN 548): February 27

Documentation Due Date: March 5*

Themes and keywords: paper prototyping, playtesting, high/low fidelity, iterative design

In both this class and its co-requisite CTIN 548, you will have until the fifth week of class—that is, February 11th—to settle on a single idea to pursue in-depth as your thesis project. This idea will be your focus for at least the remainder of this semester—and hopefully until you show your work at the MFA Thesis Show at the 2021 USC Games Expo. The *Midterm Pitch Prototype* assignment asks you to produce a “high-fidelity” fully playable paper (or “no code”) prototype of your thesis concept. This project, along with the documentation it produces, including playtest feedback, images, and video, will both advance the state of your thesis project itself, and will support your pitch presentation in CTIN 548 on February 27th.

* class time and location is swapped with CTIN-548 on March 3 and 5.

Core Mechanic Technology Study

Type: Prototype and documentation (4/6)

Design time allotted: 2 weeks (plus 1 week during Spring Break)

Grade value: 15%

Assigned: March 5*

Prototype Due Date: March 24

Documentation Due Date: March 24

Themes and keywords: core mechanic, affordances

Using the materials produced for your midterm pitch in both CTIN 542 and CTIN 548, you will isolate the (or a) core mechanic from your emerging thesis project. Then, you will research the software and/or hardware technologies required to bring this mechanic to life, and make use of them to create a standalone feature-complete playable mini-game at maximum polish. What

you produce for this assignment must *not* be simply a “slice” of your thesis project (we’ll be doing that later, in a somewhat different way); rather, it must be a complete game or interactive, scoped for the short time you have to make it, built around the same core mechanic as your thesis, and using the same kind of technology/approach your research indicates will be essential to implement that mechanic in your thesis. In so doing, you will gain insight and experience regarding the mechanical and technological possibilities (and limitations) at the core of your concept.

* class time and location is swapped with CTIN-548 on March 3 and 5.

Sensory Study

Type: Prototype and documentation (5/6)

Design time allotted: 1 week

Grade value: 10%

Assigned: March 24

Prototype Due Date: March 31

Documentation Due Date: April 7

Themes and keywords: sound, haptics

This assignment—the last before you commit to building your official thesis project *Vertical Slice*—asks you to identify which of the human senses is most essential to your thesis concept—and then to try making a playable prototype of your thesis that doesn’t depend on that sense at all. For example, if your project falls apart without visuals, this assignment asks you to reimagine and prototype it using another sense, such as sound or touch (or taste or smell, if you’re feeling adventurous), to drive the experience. This is a very difficult challenge, not least because you will only have a week to do produce a playable digital prototype at a medium level of polish. Unlike some of your other prototyping assignments, what you make as a *Sensory Study* does not need to be a standalone game; nevertheless, it must be playable enough that players can imagine how your thesis concept could work in an alternative sensory regime.

Thesis Project Vertical Slice

Type: Prototype and documentation (6/6)

Design time allotted: 4 weeks

Grade value: 20%

Assigned: March 31

Work-in-progress Due Date: April 21

Prototype Due Date: April 28

Documentation Due Date: April 28

Themes and keywords: core mechanic, affordances

Using the materials produced for your midterm pitch in both CTIN 542 and CTIN 548, you will isolate the (or a) core mechanic from your emerging thesis project. Drawing on your own research into the software or hardware technologies and approaches required to bring this mechanic to life, you must now create a standalone feature-complete playable mini-game at maximum polish that uses this core mechanic and technology. What you produce for this

assignment must *not* be simply some stripped-down version of your thesis project; rather, it must be a complete game or interactive, scoped for the short time you have to make it, built around the same core mechanic as your thesis, and using the same kind of technology/approach your research indicates will be essential to implement that mechanic in your thesis. By seeing an entire mini-game through to completion, you will reveal new insights about the mechanical and technological possibilities (and limitations) at the core of your concept. Further, because this assignment spans Spring Break, you will be asked to independently playtest and iterate the project, focusing particularly on gathering feedback about the game’s core mechanic, prior to showing it in class.

Other Assignments (10 percent of final grade)

In your documentation, you will be asked to gather and visualize the comments you receive during your crit, so be prepared to ask the class specific questions when you present your prototype... The documentation you produce here will be useful to you in many ways, not least of which is to provide content and context for the written portion of your final thesis submission.

Mini-Talk

Type: Short presentation (1/1)

Format: PowerPoint, .pdf, or Google Slides

Duration: 5-10 minute presentation, 5 minute discussion facilitation

Grade value: 10%

Assigned: January 14

Due Date: Variable

Themes and keywords: research

Your *Mini-Talk* is a 5-10 minute, 5-10 slide presentation that forms a kind of conceptual “triangle.” At one point of the triangle is a reading you will select from the reading list in the syllabus; the second point of the triangle is another reading—which must be a peer-reviewed paper available through the USC Libraries online system—that you will find yourself; and the third point is your own work—your interests, inspirations, dreams, and frustrations. Your challenge in your *Mini-Talk* is first to describe the readings clearly enough so that the class can understand what they’re about and why they might be relevant to the design processes entailed in interactive media and games; and second, to make it clear to all of us why the reading combination you’ve selected matters to *you*. Further, once you have completed your talk, you will need to mediate a 5 minute discussion—so make sure to design your presentation such that it inspires your fellow students to ask questions and share insights.

Activity descriptions

The following activities will take place during class time. Sometimes, activities will directly map to the prototyping challenge currently at hand; other times, activities will address aspects of critical prototyping and design thinking not covered in the assignments.

Design Games

Date: January 14

Duration: 100 minutes

Games are frequently used in art and design settings to grease the wheels of creativity and discovery. In this activity, we will play several such games drawn from art practice, business and social innovation, design thinking, and beyond. The ideas we generate through this play will function as part of the foundation for your first prototype assignment.

Social Studies

Date: January 28

Duration: 50 minutes

As Mary Flanagan has said, games are "social technologies." And as technology critic Safiya Noble quips, "if you're designing technology for society, and you don't know anything about society, you're unqualified." In this reflection exercise, you will explore your own ethical and political engagements with the wider social world. You will then use that exploration as the seed for design action in the vernaculars and genres that your work entails.

Want Ads

Date: January 28

Duration: 50 minutes

"The game designer," writes Tracy Fullerton, "is an advocate for the player." What does this mean for designers who want to create interactive media for specific users or players without losing track of their own formal and ethical commitments? In "Want Ads," we will collectively generate an archive of fake Craigslist-style "game wanted" ads; then, each of you will be challenged to select one of those ads to respond to for your *Wanted* prototype assignment.

Physical Prototyping Sprint

Date: February 11

Duration: 120 minutes

In this compressed physical prototyping workshop, you will rapidly fabricate a playable physical prototype of the idea you have selected to pursue as a thesis project. Like a *Project Runway* challenge, you will have much less time than you would like to build this prototype; but you will both build it and playtest it nonetheless--and all before class ends.

Speculative Design Charette

Date: February 18

Duration: 60 minutes

Navigation becomes simpler when you have a fixed star or two to move toward or away from. This activity will challenge you to imagine--some 18 months in advance--how your finished project will look and feel, how you will announce it to the world, and how the world will respond. You will then be asked to put this vision in conversation with the present state of your project.

User Case Scenario

Date: March 5*

Duration: 60 minutes

Understanding what your thesis is becoming entails not only knowing what's "in the box," but also what's outside of it. How will your thesis enter the lives of the users or players it is designed for? Where will it fit into their day? And what next steps can you take as a designer once you've envisioned answers to these kinds of questions? In this activity, you will be challenged to create an illustrated storyboard showing a "day in the life" of one of your players, and the role of your thesis in that player's day.

* class time and location is swapped with CTIN-548 on March 3 and 5.

Point of Origin

Date: March 10

Duration: 60 minutes

By this point, you probably know quite a bit about what technologies you're going to work with to produce your thesis. But what do you really know about those technologies themselves? Where do they come from? Who makes money off of them? Who benefits—and who suffers? In this activity, you will ask these and other questions concerning the "point of origin" of one of the technologies involved in your thesis; you will then be challenged to propose changes to your design based on what you find.

Included and Excluded

Date: April 7

Duration: 30 minutes

How accessible is your project? Does accessibility matter to you? Who is invited to use your project, and who finds themselves locked out? Who is your thesis for, who isn't it for, and how does that square with your values as a designer and person? This group activity challenges you to think about your thesis in terms of inclusivity and exclusivity, and to imagine new design directions in light of the insights you uncover.

Other activities and elements

Crit sessions – Each prototyping assignment must be demoed to the group in the form of a short playtest the entire class can observe (and/or participate in). These demos will be followed by a 5-10 minute structured critique session, or "crit," during which you will receive feedback from the group. You will be expected to incorporate the feedback you receive into the documentation component of the prototyping assignment.

Mini-talk blocks – Two to three students will present their *Mini-talks* during these blocks of time. You will sign up for your *Mini-talk* block when we first meet on January 14th.

Studio time – Some class sessions, especially in the final few weeks of the course, will reserve time for you to work on your prototypes in class, and to troubleshoot any issues that manifest with faculty and fellow students. Please come prepared to do work during these sessions.

Consultations and check-ins – Twice during the semester—once at mid-term, and once as the course draws to a close—I will individually meet with you to discuss your progress and help you in whatever way I can. While I am speaking to you, other students will have Studio time to work on their projects.

A note on workload

You are expected to need to put in up to 12 hours of work per week for this class outside of class time. Some weeks you will likely use up all 12 of these hours; other weeks, you may find yourself with a few spare hours to redirect toward other purposes. In any event, **do not work more than 12 hours on this class outside of class**. Scope your projects wisely (we will emphasize this repeatedly). If we've only given you a week to do a project, that means we've given you 12 hours, plus any time we spend on it in class. If you find you're working longer than 12 hours per week to fulfill your obligations for this class, downsize your ambitions, bring it up in class, and/or message me directly at remotedevice@gmail.com. Consider the 12 hours a week you have to work on this class as a core design constraint for each prototyping challenge you embark upon.

Above all, remember that the key to having a sustainable career as a designer means learning how to execute work in a timely fashion and at a professional level without destroying yourself (or anyone else).

Rest, eat, and take care of your spirit. And reach out to me or to the services listed at the end of this document if you ever feel overwhelmed.

Reading list

The following readings can be found online. You may need to be logged in to the USC Shibboleth in order to access certain journal readings. Contact me if you have difficulty finding a readable version of any of these articles (I have .pdfs for each).

Anderson, K. (2015). Ethics, Ecology, and the Future: Art and Design Face the Anthropocene. *Leonardo*, 48(4), 338–347. https://doi.org/10.1162/LEON_a_01087

Appadurai, A. (1990). Disjuncture and Difference in the Global Cultural Economy. *Theory, Culture & Society*, 7(2), 295–310. <https://doi.org/10.1177/026327690007002017>

Arnstein, S. (1969). A Ladder Of Citizen Participation. *Journal of the American Planning Association*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>

Brackett, J. (2010). Some Notes on John Zorn's Cobra. *American Music*, 28(1), 44–75.

Bruner, J. (1991). The Narrative Construction of Reality. *Critical Inquiry*, 18(1), 1–21.

Bulut, E. (2015). Playboring in the Tester Pit: The Convergence of Precarity and the Degradation of Fun in Video Game Testing. *Television & New Media*, 16(3), 240–258. <https://doi.org/10.1177/1527476414525241>

Butler, J. (1998). Merely Cultural. *New Left Review*; London, 0(227), 33–44.

- Chang, A., & Parham, J. (2017). Green Computer and Video Games: An Introduction. *Ecozon@: European Journal of Literature, Culture and Environment*, 8, 1–17.
- Consalvo, M. (2009). There is No Magic Circle. *Games and Culture*, 4(4), 408–417. <https://doi.org/10.1177/1555412009343575>
- Coomaraswamy, A. K. (1941). Līlā. *Journal of the American Oriental Society*, 61(2), 98–101. <https://doi.org/10.2307/594253>
- Dean, J. (2005). Communicative capitalism: Circulation and the foreclosure of politics. *Cultural Politics*, 1(1), 51–74.
- Eno, B. (1976). Generating and Organizing Variety in the Arts. *Audio Culture: Readings in Modern Music*, 226–234.
- Ensmenger, N. (2013). Computation, Materiality, and the Global Environment. *IEEE Annals of the History of Computing*, 35(3), 80–80. <https://doi.org/10.1109/MAHC.2013.33>
- Friedman, K. (2002). Working with Event Scores: A Personal History. *Performance Research*, 7(3), 124–128. <https://doi.org/10.1080/13528165.2002.10871879>
- Golumbia, D. (2009). Games without Play. *New Literary History*, 40(1), 179–204.
- Grimes, S. M., & Feenberg, A. (2009). Rationalizing Play: A Critical Theory of Digital Gaming. *The Information Society*, 25(2), 105–118. <https://doi.org/10.1080/01972240802701643>
- Hennessey, B. A., & Amabile, T. M. (2010). Creativity. *Annual Review of Psychology*, 61(1), 569–598. <https://doi.org/10.1146/annurev.psych.093008.100416>
- Hirsch, A. B. (2012). Facilitation and/or Manipulation?: Lawrence Halprin and ‘Taking Part.’ *Landscape Journal: Design, Planning, and Management of the Land*, 31(1), 117–134.
- Holland, L. B. (1933). The Mantic Mechanism at Delphi. *American Journal of Archaeology*, 37(2), 201–214. <https://doi.org/10.2307/498438>
- Jefferson, B. J. (2017). Digitize and punish: Computerized crime mapping and racialized carceral power in Chicago. *Environment and Planning D: Society and Space*, 35(5), 775–796. <https://doi.org/10.1177/0263775817697703>
- Kendrick, L. (2011). A paidic aesthetic: An analysis of games in the ludic pedagogy of Philippe Gaulier. *Theatre, Dance and Performance Training*, 2(1), 72–85. <https://doi.org/10.1080/19443927.2010.543918>
- Larson, C. (1939). The Cultural Projects of the WPA. *The Public Opinion Quarterly*, 3(3), 491–496.
- Lodato, T. J., & DiSalvo, C. (2016). Issue-oriented hackathons as material participation. *New Media & Society*, 18(4), 539–557. <https://doi.org/10.1177/1461444816629467>
- Marks-Tarlow, T. (2010). The Fractal Self at Play. *American Journal of Play*, 3(1), 31–62.
- Mears, A. (2015). Working for Free in the VIP: Relational Work and the Production of Consent. *American Sociological Review*, 80(6), 1099–1122. <https://doi.org/10.1177/0003122415609730>

- Nakamura, L. (2009). Don't Hate the Player, Hate the Game: The Racialization of Labor in World of Warcraft. *Critical Studies in Media Communication*, 26(2), 128–144.
<https://doi.org/10.1080/15295030902860252>
- Nieuwenhuys, C. (1959). A Different City for a Different Life. *Internationale Situationniste*, 3, 37–40.
- Owen, C. L. (1992). Context for creativity. *Design Studies*, 13(3), 216–228.
[https://doi.org/10.1016/0142-694X\(92\)90200-T](https://doi.org/10.1016/0142-694X(92)90200-T)
- Phillips, A. (2018). Shooting to Kill: Headshots, Twitch Reflexes, and the Mechropolitics of Video Games. *Games and Culture*, 13(2), 136–152. <https://doi.org/10.1177/1555412015612611>
- Pope-Ruark, R., Moses, J., & Tham, J. (2019). Iterating the Literature: An Early Annotated Bibliography of Design-Thinking Resources. *Journal of Business and Technical Communication*, 33(4), 456–465. <https://doi.org/10.1177/1050651919854096>
- Seaver, N. (2018). Captivating algorithms: Recommender systems as traps. *Journal of Material Culture*, 1359183518820366. <https://doi.org/10.1177/1359183518820366>
- Stanfill, M., & Condis, M. (2014). Fandom and/as labor. *Transformative Works and Cultures*, 15. <http://journal.transformativeworks.org/index.php/twc/article/view/593/421>
- Taylor, T. L. (2009). The Assemblage of Play. *Games and Culture*, 4(4), 331–339.
<https://doi.org/10.1177/1555412009343576>
- Turner, V. (1974). Liminal to Liminoid, in Play, Flow, and Ritual: An Essay in Comparative Symbolology. *Rice Institute Pamphlet - Rice University Studies*, 60(3).
<https://scholarship.rice.edu/handle/1911/63159>
- von Hantelmann, D. (2014). The Experiential Turn. *Living Collections Catalogue*, 1(1).
<http://www.walkerart.org/collections/publications/performativity/experiential-turn/>
- Vossen, D. P. (2016). Utopia is Intelligible and Game-Playing is What Makes Utopia Intelligible. *Journal of the Philosophy of Sport*, 43(2), 251–265.
<https://doi.org/10.1080/00948705.2015.1112235>
- Wessels, A. (2012). Plague and paideia: Sabotage in devising theatre with young people. *Research in Drama Education: The Journal of Applied Theatre and Performance*, 17(1), 53–72.
<https://doi.org/10.1080/13569783.2012.648986>
- Whitson, J. R., & Simon, B. (2014). Game Studies meets Surveillance Studies at the Edge of Digital Culture: An Introduction to a special issue on Surveillance, Games and Play. *Surveillance & Society*, 12(3), 309–319.
- Willemsen, A. (2011). Playing with Reality, Games and Toys in the Oeuvre of Hieronymus Bosch. *Hieronymus Bosch: New Insights into His Life and Work 2011*.
https://www.academia.edu/8036373/Playing_with_Reality_Games_and_Toys_in_the_Oeuvre_of_Hieronymus_Bosch

Willis, H. (2014). Playing With Engagement: Reality Ends Here. *Journal of Digital and Media Literacy*. <http://www.jodml.org/2014/06/17/playing-with-engagement-reality-ends-here/>

Winner, L. (1980). Do artifacts have politics? *Daedalus*, 121–136.

Young, G. (2011). The Score: How Does Fluxus Perform? *PAJ: A Journal of Performance and Art*, 34(2), 38–45.

Young, L. (2013). Brave New Now. *Architectural Design*, 83(3), 74–81.
<https://doi.org/10.1002/ad.1593>

Zander, U. (2011). Game-park capitalism, globalization, and multinational companies: An overview and a research agenda. *Thunderbird International Business Review*, 53(3), 279–298.
<https://doi.org/10.1002/tie.20407>

Zweig, J. (1997). *Ars Combinatoria: Mystical systems, procedural art, and the computer*. *Art Journal*, 56(3), 20–29.

rev. 10 January 2020 / JBW