

Becoming Builder: Generating Collaborative Platforms



Fig. 3.1 KAMG group presentation of reCLAIM Café by Miranda Curry, Aaron Hathaway, Keegan Hasbrook, and Grace Vriezen. University of Wisconsin–Madison. 2016. (Photo by author)

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FROM MAKERS TO BUILDERS

Wrestling with Plato's *Fight Club* means grappling with media and also with institutions and oneself. The transformation of the liberal arts from a literate institution to a digital one has been underway for half a century, but still faces many challenges, not only technological and organizational but also cultural. Digital culture is a maker culture, yet the model of making changes dramatically—from individual Romantic genius to that of collective postmodern bricoleurs, makers who collaboratively create with any medium necessary and any means available, often using found, repurposed materials. The Romantic genius remains a powerful model of creativity in liberal arts education, one closely tied to the spaces of seminars (the writer), studios (the artist), and labs (the scientist), as well as and the values of originality and exceptional natural ability. In this model, individual creativity opposes the power of institutions, with power conceived only as repressive and negative, with knowledge serving as the means of liberation. Michel Foucault famously countered this opposition of power and knowledge with knowledge-power: knowledge presupposes power and comes into different arrangements (*dispositifs*). Foucault defines disciplinary power as positive and productive of modern subjects and objects alike.¹ Modern institutions have generated and shaped our very concept of being human—being becomes grounded in human subjects and clear ideas with Descartes—but with the shift from disciplinary to control societies, unified subjects and objects become multiple and intersectional, constructed and deconstructed, looped into each other. Within the transversal space of StudioLab, creativity becomes collaborative and recombinant, mixing not only bodies and media but also pedagogies and infrastructures. The value here is not originality but transformation, even metamorphosis: in StudioLab, students first become makers, then become *builders*, producers of critical design teams that draw on institutional resources to make shared experiences and build collaborative platforms (Fig. 3.1).

Becoming builder entails the self-organization of makers into collective ensembles: critical design teams who research, design, and build both projects and the infrastructure necessary for their collaborative activities, which include organizational structures (production roles, decision-making processes), communication networks (email, Google Docs, websites),

¹ See Michel Foucault, *Discipline and Punish* (New York: Vintage Books, 1995).

and micro-cultures (habits, styles, material artifacts, and affective investments). Critical design teams produce transmedia knowledge and come with their own power dynamics, and we can initially understand teams as desiring-machines—a term used by Gilles Deleuze and Felix Guattari to describe small assemblages of bodies and mechanisms which intervene in larger sociotechnical systems, institutions understood as composed of both people and technologies. ‘There are no desiring-machines that exist outside the social machines that they form on a large scale; and no social machines without the desiring machines that inhabit them on a small scale.’² Research teams, art movements, garage bands, theory schools, start-ups, and activist groups—all constitute desiring-machines that draw on and off larger institutions for discourses and practices and many other resources, even if they set out to break away, resist, or transform them. Power dynamics of class, gender, sexuality, race, ethnicity, ability, age, and raw chemistry inform these desiring-machines, resonating with those of the wider world, for better and for worse. Within the institution of higher education, StudioLab functions as a desiring-machine for building other desiring-machines, critical design teams capable of generating transmedia knowledge and transvaluation of values for diverse audiences, connecting with desiring-machines in other institutions, and thereby transforming the place of higher education in contemporary society. Here, transmedia knowledge becomes tactical media, and desiring-machines morph into collective assemblages of enunciation—platforms for collective thought-action.

Tactical media is a core component of the StudioLab pedagogy because it supplements the medium of phonetic writing on which traditional critical thinking is based while helping to open the field of critical design. Tactical media intervenes in social situations and has a long history, even if the term is relatively new: the banners and posters used by nineteenth-century labor movements, early twentieth-century suffragettes, and mid-century civil rights activists can all be seen as tactical media, as can any media used to contest and resist dominant forms of power. StudioLab’s critical design process combines traditional critical thinking with tactical media-making that relies on collective, recombinant creativity, the mixing of desires and skills, materials and processes. Becoming builder means building shared experiences and collaborative platforms on which to make

²Gilles Deleuze and Felix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1983), 340.

media, while also working on oneself and on institutions, transforming oneself by creating with others, seeking to enter what psychologist Mihaly Csikszentmihalyi calls a *state of flow* or intense concentration. Such experiences of creative immersion resonate with the mimetic enchantment Plato found in Homeric poetry and the plateaus of intensity cyberneticist Gregory Bateson found in Balinese culture.³

In critical design teams, these collective experiences of flow are intermittently broken by moments of critical reflection and analysis. These breaks can be especially productive when collaboration sputters due to interpersonal conflicts. Such conflicts often reveal the power dynamics of desiring-machines, thus engaging with them can generate both personal and interpersonal transformation. Importantly, critical breaks also enable teams to respond to feedback from others, such as instructors, other teams, target audiences, and community partners. Such feedback enables critical design teams to fine-tune and sometimes reorient their collaboration.

This transformational rhythm of creative flows and critical breaks channels the onto-historical power of both oral and literate apparatuses and is essential to the democratization of digitality and design in higher education and beyond. Literate education stresses critical thinking: having expelled other media at the beginning, it has had trouble with creative flows both historically and at the level of being: *eidōs* is fixed. Collaborative figuration makes ideas flow.

CRITICAL DESIGN 102: BUILDING COLLABORATION

StudioLab's critical design teams are based on industry work as writer and information architect and teaching experience in programs of multimedia, theater and performance studies, and English, as well as workshops given in fields ranging from biomedical science and environmental science to development sociology, labor relations, and engineering. Here we introduce a series of concepts and practices designed to facilitate the shift from maker to builder. To build collaboration, students perform

³See Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York: Harper & Row, 1990), Eric Havelock, *Preface to Plato* (Cambridge, MA: The Belknap Press of Harvard University Press, 1963), and Gregory Bateson, *Steps to an Ecology of Mind* (New York: Ballantine Books, 1972).

in different modes, those of *teams*, *bands*, and *guilds*, which correspond roughly to the activities of seminar, studio, and lab. As desiring-machines, critical design teams function to transform makers from highly individualistic *bachelor machines* into collaborative *intimate bureaucracies*, where they role-play as critical design consultants, performing such roles as producers, writers, webmasters, and multimedia makers. Through this collaborative role-play, critical design teams build shared experiences and collaborative platforms while learning to mix cultural, technological, and organizational performances and their associated values of efficacy, effectiveness, and efficiency. The chapter concludes by introducing StudioLab's second design frame, User Experience or UX. We begin, however, with another collection of tutor sites, inspirational collaborations for our critical design teams.

Tactical Media: Critical Art Ensemble

In many ways, Critical Art Ensemble (CAE) offers StudioLab the most provocative of tutor collaborations. Formed in 1987, this artist activist group opened up the realm of electronic civil disobedience with its 1994 manifesto, *The Electronic Disturbance*, published just after the web went public in 1991 and the Mosaic browser began making it popular in 1993. Long before NSA (National Security Agency) cybersurveillance, criminal ransomware, and WikiLeaks whistleblowers, CAE persuasively argued that power had gone virtual and that new modes of civil disobedience were needed. At the same time, they challenged their peers, contending that artists remained too uninterested in digital media, activists too tied to the streets, and programmers too ensconced in the security state for the necessary collaborations to emerge and develop such modes of resistance.⁴ By 2000, however, CAE and groups such as the hacktivists Electronic Disturbance Theater, cyberfeminists subRosa, and the anti-corporatists eToy had developed and deployed a range of electronic civil disobedience practices. Each group functions as a desiring-machine, and Critical Art Ensemble, in particular, provides the inspiration for StudioLab's critical design teams.

⁴ See Critical Art Ensemble, *Digital Resistance* (Brooklyn, NY: Autonomedia, 2001).

CAE explicitly counters the model of the individual Romantic genius in their very name and reinscribes the creation of fine art within the production of tactical media, a key component of our critical design process. Tactical media entails transmedia knowledge and vice versa: both constitute transformational forms of knowledge-power designed to produce specific effects with specific audiences. Over three decades, CAE has produced community events, interactive installations, public programming, infographic posters, radio bikes, videos, websites, books, essays, and pamphlets.

The tactical media practitioner uses any media necessary to meet the demands of the situation. While practitioners may have expertise in a given medium, they do not limit their ventures to the exclusive use of one medium. Whatever media provide the best means for communication and participation in a given situation are the ones that they will use. Specialization does not predetermine action. This is partly why tactical media lends itself to collective efforts, as there is always a need for a differentiated skill base that is best developed through collaboration.⁵

Specialization can sharpen minds to the dullest of points. Transdisciplinary interventions and collaborative problem solving far from discipline open up specialized, ideational thought to hyperlinked syntheses connections far beyond inductive and deductive logic. These syntheses and their transmedia networks produce holistic thought-action figures through Peircean abduction (cognitive leaps) and Ulmerian conduction (associative revelations or flashes).⁶ We think-act across different media and fields of experience. In addition to tactical media, CAE provides StudioLab the organizational infrastructure for producing and practicing thought-action in the world.

For sustained cultural or political practice free of bureaucracy or other types of separating factors, CAE recommends a cellular structure. [...] While size and similarity through political/aesthetic perspective has replicated itself in the group, members do not share a similarity based on skill. Each member's

⁵ Critical Art Ensemble, *Digital Resistance* (Brooklyn, NY: Autonomedia, 2001), 8.

⁶ On abduction, see Robert Sharpe, "Induction, Abduction, and the Evolution of Science." *Transactions of the Charles S. Peirce Society* Vol. 6, No. 1 (Winter, 1970), 17–33. On conduction, see Gregory L. Ulmer, *Teletheory: Grammatology in the Age of Video* (New York and London: Routledge, 1989), 63.

set of skills is unique to the cell. Consequently, in terms of production, solidarity is not based on similarity, but on difference. The parts are interrelated and interdependent.⁷

CAE's model is the artist cell, not the terrorist cell. StudioLab adds to artist cells other tutors, including theory schools, garage bands, start-ups, and so on—small groups of three to five people bound by shared conceptual and aesthetic interests and diversified in technical training and skills.

While CAE has sought to intervene in art and activist traditions, StudioLab focuses on transforming institutions of higher education, in particular the liberal arts, which range from humanities and social sciences to physical and life sciences. CAE was originally formed by graduate students from different fields at Florida State University, and significantly, has targeted economic and scientific issues. CAE's means of self-organization offers StudioLab students a valuable lesson about scale and sustainability: *their own critical design can become independent and sustainable far beyond the particular context in which they emerge*. While this independent sustainability can arise with graduate students, it is the undergraduates—precisely because of their liberal arts requirements—who are the most radically transdisciplinary (even if few realize that their majors are actually disciplines with their own histories). StudioLab provides the space, means, and opportunity for students to collaboratively integrate their cross-campus learning with real-world action both in and out of school.

Scrambling the Alphabet: Google

For StudioLab, Google demonstrates the potential of a collaborative college project not only to exist beyond college but also to help scramble the literate infrastructure of schooling itself. Started in 1996 as a research project by Stanford Ph.D. students Larry Page and Sergey Brin, Google has grown from a small start-up in a garage into one of the world's largest multinational corporations. Page's dissertation project to graph the World Wide Web's structure and Brin's experience on the Stanford Digital Library Project (which sought to digitize all books) combined to produce

⁷ Critical Art Ensemble, *Digital Resistance*, 65.

a revolutionary search engine that has helped transform the very nature of research: both specialists and nonspecialists can use complex algorithms to search innumerable web files and access texts, images, videos, and maps—and do so at any time, from any place with an Internet connection. The model for Google’s PageRank was the Science Citation Index, with the index being a powerful literate tool for cataloging textual citations that date back to medieval times. Google generated an index of the web in a dynamic, scalable fashion. In 1998, when the search engine still at on Stanford servers, Brin and Page wrote: ‘In designing Google, we have considered both the rate of growth of the Web and technological changes. Google is designed to scale well to extremely large data sets.’⁸ Since its inception, Brin and Page’s collaboration has helped to democratize digitality by bringing information and media to people’s fingertips at scales and speeds that continue to amaze. Like Xerox, FedEx, and Photoshop, but far more powerfully, Google is a trademarked proper name that has also become a transitive verb in common usage: ‘to google’ means to search the web—to research.

Early on, Brin and Page’s idealism drove them to disparage search engines funded by advertising. However, once incorporated Google embraced ads, making it hard to live up to its founding ethos, ‘Don’t be evil.’ Since then, Google has come under numerous attacks—including legal contests—for a wide variety of reasons. Criticisms include: its search algorithms are weighted to produce biased results; its ads and digitalization projects contribute to the commercialization of knowledge; its business practices are unfair and monopolistic; its incessant data collection erodes personal privacy and constitutes a profound form of capitalist dataveillance; its collaboration with the NSA demonstrates that it puts state security over individual freedom; and its cultural ethos harbors industry-wide values of sexism and racism. In this light, Google, for many, embodies the observation attributed to social commentator Eric Hoffer: Every great cause begins as a movement, becomes a business, and eventually degenerates into a racket.⁹ There is a lesson here for critical design teams.

⁸Sergey Brin and Lawrence Page, “The Anatomy of a Large-Scale Hypertextual Web Search Engine.” *Computer Networks and ISDN Systems* 30 (1998), 107–117.

⁹Hoffer’s actual quote is “What starts out here as a mass movement ends up as a racket, a cult, or a corporation.” Eric Hoffer *The Temper of our Time*, (New York: Harper & Row, 1969), 50–51.

In his 2011 book, *The Googlization of Everything: (And Why We Should Worry)*, media scholar Siva Vaidhyanathan shares his own transformation from Google enthusiast to Google skeptic, before setting out a comprehensive critique, less of Google itself, than of ‘how we use Google.’ He frames the challenge of googlization—the expansion of Google tools and services into ever wider spheres of society—as a ‘public failure’: ‘when Google does something adequately or cheaply in the service of the public, public institutions are relieved of pressure to perform their tasks well.’¹⁰ Vaidhyanathan’s primary interest lies in the impact googlization on books, knowledge, and cultural memory. With googlization, he argues, knowledge is becoming fractured, memory filtered by customized algorithms, and encounters with true difference eliminated. Vaidhyanathan offers his own remedy, a proposal for a Human Knowledge Project, in which libraries function as crucial nodes. He also offers his own recombinant mission statement. The Human Knowledge Project

... would identify a series of policy challenges, infrastructure needs, philosophical insights, and technological challenges with a single goal in mind: to organize the world’s information and make it universally accessible. I am sure Google won’t mind if we copy its mission statement.¹¹

It helps to place Google and Vaidhyanathan’s arguments against googlization within the nested onto-historical contexts that inform StudioLab. The public failure Vaidhyanathan describes predates Google and the birth of the web, as public funding for US education began declining with the rise of neoliberal economics in the 1980s and accelerated with the end of the Cold War. The fracturing of knowledge and marginalization of difference, Vaidhyanathan rightly decries, predates Google by millennia. Disciplinary specialization can be traced back through Descartes’ *Discourse on Method* to Aristotle’s tree-shaped categories; and the marginalization of difference to Aristotle’s Law of Identity ($A = A$). Google and other search algorithms do filter knowledge, and Vaidhyanathan acknowledges that there are no neutral algorithms, yet literacy itself functions as a massive onto-historical filter—with Plato’s exclusion of the poets from the Republic, images, music, dance, and other non-written media have been

¹⁰Siva Vaidhyanathan, *The Googlization of Everything: (And Why We Should Worry)*, 2nd ed. (Berkeley: University of California Press, 2011), 6.

¹¹Ibid., 204–205.

filtered out of the realm of true, epistemic knowledge, that is, ideation. Western colonialism and universal reason transmediate the world into *logos*, for better and for worse.

Conversely, Vaidhyanathan's arguments against googlization resonate with Plato's arguments *against* writing in *Phaedrus*. There Socrates argues that writing is not 'a potion for remembering, but for reminding' and that it offers, not true understanding but 'discourse [that] roams about everywhere, reaching indiscriminately those with understanding no less than those who have no business with it, and it doesn't know to whom it should speak and to whom it should not.'¹² In short, Vaidhyanathan's own filter is logocentric, as is much of media studies: he uncritically asserts the positive value of books and libraries without also acknowledging the negative effects of literacy's power, and his critique of the emerging digital 'technocracy' fails to recognize that literacy is itself the most powerful technocracy the world has ever known. He asks the right question: 'Are we headed down the path toward a more enlightened age and enriching global economy, or are we approaching a dystopia of social control and surveillance?'¹³ StudioLab's answer is *yes*: technology is *pharmakon*, both remedy and poison, whether it functions in the digital, literate, or oral apparatus.

As performance scholar Diana Taylor argues, the literate archive helped radically transform—and in many cases erase—the customs of cultures built on oral repertoires (embodied repositories of gestures, songs, music, and rituals), a process that required centuries of colonial conquest.¹⁴ Likewise, the digital database has been helping transform the knowledge production of archive-based cultures over the past half-century, a period also notably marked by rapid decolonization. For better and for worse, by digitizing archives and research Google is helping to displace the gatekeepers of modern literacy (scholars, librarians, and publishers), just as the archive helped displace the gatekeepers of traditional orality (elders, healers, and rhapsodists). Vaidhyanathan fears that bloggers, Wikipedia, and Google will become the new experts without considering that the remix of *episteme* and *doxa*, scholars and rappers, logocentric and indigenous

¹² Plato, *Phaedrus* (Indianapolis, IN: Hackett Publishing Co, 1995), 275a, 275e. As Derrida reminds us, Plato argues against the Sophists' writing practices while arguing for the logocentric writing of the soul, whereby writing captures the ideal *Eidos* and translates ideation into dialectical *Logos*.

¹³ Vaidhyanathan, *The Googlization of Everything*, 8.

¹⁴ See Diana Taylor, *The Repertoire and the Archive*, (Durham: Duke University Press, 2003).

media is already producing new forms of transmedia knowledge, in which experts and amateurs coexist and collaborate through projects such as Citizen Science, Citizen History, and community-based research where inquiry is informed and guided by community concerns and needs.

As tutor collaboration, Google demonstrates that a desiring-machine can scale into a global sociotechnical system in a relatively short time, producing pharmacological effects: beneficial, malevolent, undecidable. In case of Google, a pair of graduate students built a research engine (Google Search), and their collaboration grew to create many other collaborative platforms, including a filing system (Google Drive), library (Google Books), cartographic systems (Google Maps and Google Earth), citation index (Google Scholar), and its own campus (Googleplex). The widespread adoption of the Google Classroom—comprised of its word processor (Google Doc), email system (Gmail), and laptop (ChromeBook)—by half of the US elementary and secondary schools is creating a generation of googlized students trained for projects like the Human Knowledge Project.¹⁵ The question StudioLab poses: Does higher education have the flexibility and imagination to retool its logocentric superstructure (faculty, curricula, learning spaces, support services), within its digital infrastructure (databases and systems found in content management systems, libraries, email and calendaring, admissions, etc.), thereby empowering this generation of highly collaborative desiring-machines? Remixing the *pharmakon* of orality, literacy, and digitality, StudioLab provides plug-ins for Google Classroom that enable critical design teams to engage the pharmacological powers of googlization.

(Un)masking Discrimination: The Guerrilla Girls

StudioLab's critical design approach brings the power of critical thinking to new contexts via tactical media and transmedia knowledge, which may be digital, analog, or embodied. One of the most successful and provocative collaborations in this regard has been the Guerrilla Girls, a feminist art activist group formed in 1985 in New York City. Using performance art, street protests, masks, posters, infographics, billboards, videos, books, and the World Wide Web, the Guerrilla Girls have targeted different social

¹⁵See, Natasha Singer, "How Google Took Over the Classroom," (*The New York Times*, May 13, 2017).

institutions—particularly in the art world and entertainment industry—for their sexism, racism, and other forms of discrimination. The Guerrilla Girls’ work is simple, direct, and effective: in the late 1980s, they plastered New York City’s Soho neighborhood with posters presenting the meager number of women artists shown in New York galleries, thereby forcing a public discussion of sexist exhibition practices that helped introduce more diverse artists into the art world. Their trademark tactical media are gorilla masks, which they wear for very specific reasons: to protect their anonymity, to focus on issues rather individuals, to ward off the stereotypical focus on women’s beauty, and to provoke audiences with pointed political and social humor. They often appear as four Guerrilla Girls, but the group has a flexible composition:

Over 55 people have been members over the years, some for weeks, some for decades. Our anonymity keeps the focus on the issues, and away from who we might be. We wear gorilla masks in public and use facts, humor and outrageous visuals to expose gender and ethnic bias as well as corruption in politics, art, film, and pop culture. We undermine the idea of a mainstream narrative by revealing the understory, the subtext, the overlooked, and the downright unfair. We believe in an intersectional feminism that fights discrimination and supports human rights for all people and all genders.¹⁶

The Guerrilla Girls’ gorilla masks offer a singular incarnation of thought-act figures. They are much more than an idea or symbol, as they exist and perform in the world, harboring specific theoretical and practical powers. Rather than static forms, they gather dynamic forces and are animated by the living persons wearing them and interacting in the world by engaging the flow of different social forces, those of gender, sexuality, race, ethnicity, ableism, and class. The ideas do not disappear, however, as much as become elements within thought-action figures that function as a nexus of sometimes disparate yet resonant knowledges and powers: gorillas, guerrillas, girls, grrls, and so on. While ideation strives for emotional distance between clearly defined subjects and objects, thought-action figures embrace what Deleuze and Guattari call the double deterritorialization of human and world, the opening up of modes of becoming-other through the sharing of affective intensities. In the work of the Guerrilla Girls, the power of pointed humor and outrageous visuals is channeled

¹⁶The Guerrilla Girls, “Our Story,” <https://www.guerrillagirls.com/our-story>. Accessed August 11, 2017, 10:13.

and released through the wearing of gorilla masks which transform recognizable individuals into anonymous warriors, into living thought-action figures who talk the talk and walk the walk in the halls of masculine power—confronting it with what we might call feminine ‘maskulinity’. In their book *Bitches, Bimbos and Ballbreakers: The Guerrilla Girls’ Illustrated Guide to Female Stereotypes*, the group tackles stereotypes by critically historicizing them and then, reversing and inverting their negative attributes, embracing them:

If the world is going to call you a Bitch for being ambitious, outspoken, and in control of your own sexuality, why not accept it and be proud? “Bitches of the world unite” Be tough, get what you want, be a real Bitch. But don’t let anyone call you one!¹⁷

With the Guerrilla Girls, stereotypes can themselves become empowering thought-action figures. For groups role-playing as critical design teams, this combination of anonymity, collaboration, and critical humor can empower individual students in ways that the lone creative genius simply cannot. By role-playing and wearing the ‘mask’ of critical design teams, students refunction common organizational processes by creating provocative and often humorous team names, logos, mission statements, and job titles. Becoming builder entails becoming empowered through the parodying and ‘mimikry’ of established power. In an age of performative inputs and outputs, data must be visualized to become intelligible: those data visualizations wrapped in stories to make sense, and those stories performed before the right audiences to create impact. The Guerrilla Girls’ tactical media makes ample use of factual information, often visualized in tables and charts and disseminated on postcards, posters, and billboards using high contrast images, bright, eye-catching colors, and bold, startling headlines. One of their most famous posters reads: ‘Do women have to be naked to get into the Met. Museum? Less than 5% of the artists in the Modern Art sections are women, but 85% of the nudes are female.’ The image on the poster, which ran on the New York City buses, was Ingres’ *La Grande Odalisque* wearing a gorilla mask. In the Guerrilla Girls’ hands, iconic high culture artworks can also become thought-action figures.

¹⁷ Guerrilla Girls, *Bitches, Bimbos and Ballbreakers: The Guerrilla Girls’ Illustrated Guide to Female Stereotypes* (New York: Penguin Books, 2003), 26.

Critical design teams study such collective practices in order to generate their own collection of tactical media and embodied thought-action figures. Students also study the organizational dimension of activists and other groups as means to self-organize and build their own critical design teams. Different tutor groups offer different lessons. Most strikingly, the Guerrilla Girls have described their ensemble as open and at times dysfunctional.

Over the past ten years, we've come to resemble a large, crazy but caring dysfunctional family. We argue, shout, whine, complain, change our minds and continually threaten to quit if we don't get our way. We work the phone lines between meetings to understand our differing positions. We rarely vote and proceed by consensus most of the time. Some drop out, but eventually most of us come back, after days, months, and sometimes years.¹⁸

Similar to CAE, the Guerrilla Girls work by a crazy caring consensus: they say 'yes' to collectivist ideas and projects that have been extensively researched and debated. The group thus offers powerful lessons for one of StudioLab's core missions: to inject values of cultural efficacy into systems dominated by technical effectiveness and organizational efficiency.

The democratization of digitality and design encounters intense cultural resistance, as seen in the well-publicized sexism, racism, and xenophobia found in Silicon Valley. However, as argued in a recent study of reasons that workers leave the tech industries, these problems do not originate in tech industries.

The ongoing debates about whether the lack of diversity is due to a "pipeline problem" or a "tech culture problem" has failed to accurately frame the problem: that there are a complex set of biases and barriers that begin in pre-school and persist through the workplace. These cumulative biases and barriers prevent the tech ecosystem from being more diverse, inclusive, and representative of the United States population as a whole.¹⁹

In short, the obstacles to democratizing digitality and design are structural and cultural, and as we have seen, the superstructure dimension lags

¹⁸Emily Faxton, "American Ideas in Three Artist Collectives, in Yale National Initiative," https://teachers.yale.edu/curriculum/viewer/initiative_11.03.02_u, accessed March 20, 2018.

¹⁹Allison Scott, Freada Kapor Klein, and Uriridiakoghene Onovakpuri, *Tech Leavers Study* (Oakland, CA: The Kapor Center for Social Impact, 2017), n.p.

behind the infrastructural dimension, not just in the US but around the world. Just as the Guerrilla Girls have targeted the art and entertainment worlds, StudioLab's critical design teams learn ways to target the sexism, racism, and xenophobia found in the emerging digital apparatus.

Virtual Consultants: The EmerAgency

A fourth tutor for StudioLab's critical design teams is The EmerAgency, a research group that practices a kind of virtual consultancy or Konsultancy. Its twin mottos are 'Problems B Us. And from Basho, this admonition: Not to follow in the footsteps of the masters, but to seek what they sought.'²⁰ The latter provides a good understanding of StudioLab's relation to tutor texts; the former resonates with StudioLab's goal to help students problem-solve far from their discipline, by mixing expert and common knowledge—although the EmerAgency approaches problem-solving as part of the problem with literate approaches to knowledge: the problem is us, our very attempt to solve or fix the flux of the world with detached, specialized knowledge. Human mastery of the world is limited if not illusionary and has a checkered past, and thus a more humble, holistic, and prudent way is needed. The EmerAgency's virtual consultations work without portfolio: The group develops and proposes unsolicited projects for established organizations, including the National Park Service, the City of Miami, and the State of Florida, projects that reveal the excess or sacrificial dimension (marked with K) of communities and public infrastructures and services, such as tourism, national parks, and disaster relief. An early project was Florida Rushmore, a proposed attraction to increase state tourism by revealing to travelers the abyssal nature of American national identity formation through a holographic Mount Rushmore-like monument placed inside a Florida sinkhole.²¹ Such Konsults reconfigure '... disasters as epiphanies, revealing the fatal strategy underlying all possible scenarios. Disasters intimate Limit, Measure, functioning as messages from Technics, the Other Ontology of our machines.'²² An important lesson for StudioLab's critical design teams is that digital media

²⁰The EmerAgency website, <http://emeragency.electracy.org>, accessed Aug. 8, 2017.

²¹See Gregory L. Ulmer, "METAPHORIC ROCKS: A Psychogeography of Tourism and Monumentality." <http://users.clas.ufl.edu/glue/Rewired/ulmer.html>. Visited August 10, 2017.

²²The EmerAgency website, <http://emeragency.electracy.org>, accessed Aug. 8, 2017.

can function both as a means for providing consultation services to the academy, community members, and policymakers *and* as a medium for receiving messages and revelations from the digital apparatus itself. In short, students consult with other humans and are consulted by a Machinic Other—for instance, through patterns generated by random results from Google searches. Learning to prepare for such revelations is key to StudioLab’s approach to creativity and innovation through the construction of desiring-machines and thought-action figures.

The EmerAgency is composed of a transdisciplinary team: media theorist Gregory Ulmer, artists Barbara Jo Revelle and John Craig Freeman, and architect William Tilson, all of whom first collaborated together as the Florida Research Ensemble. As with CAE and Google, The EmerAgency collaboration has bootstrapped itself from literate academies to help invent theories and practices for the digital apparatus. Like StudioLab, The EmerAgency explicitly focuses on the displacement of literacy within digitality, which Ulmer has theorized extensively in terms of ‘electracy.’

What are the electrated equivalents of the literate institutional practices and identity formations? ... much of the best theorizing of new media and digital technology today neglects the insights of “apparatus”: that the Internet is an emerging institution that is to electracy what school was to literacy; that the categorial, logical, and rhetorical practices needed to function natively in this institution have to be invented, and moreover that the invention of an image metaphysics (the equivalent of what Aristotle accomplished for the written word) has its own invention stream, independent of the features of modern recording equipment.²³

We have seen this neglect of apparatus with Vaidhyanathan’s approach to Google. For critical design teams, the challenge lies in intervening in the googlization of the world using digital as well as literate approaches, including both electrated image metaphysics and literate ideational metaphysics. Again, through transmedia knowledge, ideas become figural and pharmacological.

Central to The EmerAgency’s image metaphysics is flash reason, which replaces the slow deliberative judgment of the literate world with flashes of deliberative judgment attuned to the instantaneous, real-time pace of digitality/electracy. Such flashes or revelations emerge through a logic of conduction (which supplements induction and deduction), thinking composed

²³The EmerAgency, <http://emeragency.electracy.org>, accessed Aug. 8, 2017.

of associative patterns that emerge by cycling through different audiovisual discourses, in particular those of Discipline/Career, Community/History, Pop Culture, and Family (other possible discourses include Religion and the Street).²⁴ Superimposing these different discourses produces moire-like patterns of thought.

Conductive flash reason is one way StudioLab's critical design teams produce thought-action figures and embrace the power of branding and collectivist icons (whose artifice displaces natural identity and national symbols). From this perspective, we can grasp the Guerrilla Girls' anonymous gorilla masks as a recombinant thought-action figure that flashes forth from the overlaid discourses of art activism, feminism, *Planet of the Apes*, and sisters (indeed, try a Google image search of those four terms). Similarly, through transmedia knowledge, StudioLab's critical design teams produce thought-action figures shared with audiences associated with different discourses, including academics and professionals, community members and policymakers, the general public, and even family and friends. Through their collaborations, students usually find that they can easily discuss the most esoteric of topics with different audiences and are eager to share their projects with family and friends, something rarely done with academic papers. Using flash reason, StudioLab's critical design teams create the circumstances needed to receive revelatory, machinic Konsults and translate them into the thought-action figures of transmedia knowledge.

By role-playing as critical design teams, students enter a transformational space where the creative flow associated with orality mixes with the critical breaks of literacy and where the cycling between different audiovisual discourses produces the flash of electrated identity formation. Ulmer describes this mode of identity in terms of avatars found in gaming, while drawing extensively on the Sanskrit history of this term:

The argument explores the practical consequences of taking seriously the full potential of this Sanskrit name and tradition. 'Avatar' means 'descent,' referring to the incarnation of a god at a time of crisis. [...] The player-avatar relation is associated with the history of practical reason and the virtue of prudence, or good judgment. The proposal is to upgrade prudence from

²⁴See Gregory L. Ulmer, *Teletheory: Grammatology in the Age of Video* (New York and London: Routledge, 1989).

literacy to electracy. Prudence in practice names the ability to use experience of the past to make decisions in present circumstances leading to good outcomes for the collective order in the future: it is a time logic. [...] Apparatus theory shows that this upgrade involves not only the outline of a new mode of inference, but a new mode of identity as well. Avatar is identified as the site of a new experience motivating a shift in behavior and even of being, both individually and collectively.²⁵

The EmerAgency's Konsults and flash reason function as incarnations not of gods or spirits but of a Machinic Other, with 'machinic' understood not simply as technology but along the lines of what Deleuze and Guattari call 'machinic phylum,' an inorganic life that runs through humans and technologies to the earth and cosmos themselves. Electracy avatar is environmental, planetary, and cosmic. For StudioLab, becoming builder in digitality entails becoming other through the universe/university, while avatars function as thought-action figures for doing so.

TEAMS, BANDS, AND GUILDS

Collaborative problem-solving and digital expression have emerged as valuable forms of participatory maker culture.²⁶ The four tutor groups above offer different insights and figures for collaboratively combining critical thinking and tactical media at various scales for different ends, including social activism, technological innovation, and transdisciplinary post-ideational thinking. In all four groups, we see the importance of self-organization and project management. Becoming builder entails collaborating both to make media and to generate a social and technical platform—a desiring-machine—with which to do so. StudioLab mixes learning activities found in seminar, studio, and lab, while mapping the CAT design frame on to these spaces to help students analyze and create projects with strong conceptual, aesthetic, and technical elements. From these projects emerge shared experiences and collaborative platforms, the self-organization of transmedia knowledge production. Students become builders by cycling through these learning spaces and performing as teams, bands, and guilds, respectively.

Teams form the basic unit of StudioLab's collaborative activities, and they function to conceive, develop, and create the core conceptual elements of transmedia projects. Teams contain three to five students, and

²⁵ Gregory L. Ulmer, unpublished proposal for *Avatar Emergency*, n.p.

²⁶ See Henry Jenkins et al., *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, (Cambridge: MIT Press, 2009), 8.

their formation generally occurs around shared interests, although other factors may play a determining role, such as interpersonal relations, differing technical skills, or even chance. Teams may self-select or be organized by instructors. When meeting in a media studio, the assembled teams gather around tables arranged to form a single seminar table with a projection screen and whiteboard or blackboard nearby. As a class, projects are assigned, readings analyzed, examples and tutor materials examined, concepts explored, and questions raised and discussed. Role-playing constitutes a crucial dimension of critical design teams, as it enables individual students to become something bigger than themselves, both imaginatively and practically. Emulating specific tutor groups, critical design teams may give themselves distinctive names, write manifestos and mission statements, create logos and websites, and assign members titles and roles—at times outrageous or parodic, but always functional. As seen with the Guerrilla Girls, these names, logos, and roles have the making of thought-action figures. Teams empower individual students to become builders in mind, body, and technique.

Bands are teams jamming aesthetically: bands perform in studio formation and around their own separate tables, usually covered with books, notes, sketches, and laptops. In bands, roles such as writer, webmaster, photoshopper, and videographer emerge and converge around the design and production of the different forms their transmedia projects will take; for example, graphic essay or illustrated proposal, project website, video demo or trailer, and multimedia presentation. Models for bands include rock bands, rap groups, and jazz and classical quartets, with different members making specific contributions to the overall performance. Within bands, students transmediate their team's conceptual content into aesthetic forms, focusing on their desired impact, their composition and structure in time and space, and the look and feel of individual moments. While the conceptual content tends to remain constant across different smart media, the aesthetic shape and appearance may shift dramatically depending on the audience, desired experience, and technical medium. Bands focus on making media consistent with their overall project plans (Fig. 3.2).

While teams and bands have the same composition when performing their respective conceptual and aesthetic activities, guilds enable individuals from different groups to meet and exchange technical skills related to their specific roles. Just as lead guitarists or DJs gather to share and hone specific techniques, students from different bands meet in guilds to focus on technical skills such as Photoshop, WordPress, InDesign, or SketchUp.



Fig. 3.2 Make a toy experience design exercise. University of Wisconsin-Madison. 2016. (Photo by author)

The classroom enters lab formation, with tables sometimes arranged in rows while students learn software from instructors, Lynda.com, YouTube videos, and especially one another. After honing their skills, guild members then bring them back to their bands and collaborate in transmedia production. In StudioLab, not all students need to learn each relevant software, which minimizes the number of lab training sessions. Alternatively, when students do learn all the project-specific software, they can lend a hand to the lead guild member; they can help out when needed with the production of websites, digital images, presentations, and so on. The key aspect of guilds is that they function as a micro learning community, supporting one another's development of media skills.

Critical design teams become builders by cycling through the conceptual, aesthetic, and technical activities of seminar, studio, and lab; spaces that are typically siloed across campus in widely dispersed departments and colleges. This cycling produces transmedia knowledge, and the interweaving of

bodies, materials, and skills constitutes a powerful learning experience, enabling students to problem-solve collaboratively by integrating knowledge and know-how from different disciplines into a rich, coherent project embodied across a suite of transmedia genres. These media forms, in turn, can engage a wide variety of audiences and other potential collaborators: researchers, community members, policymakers, funders, and the general public. By building projects that engage different groups through diverse media, teams reveal how digital rhetoric extends and strengthens the force of traditional composition and rhetoric. In sum, by becoming builder, students generate a social and technical platform on which to build projects that strategically connect different social groups.

CRITICAL DESIGN TEAMS AS INTIMATE BUREAUCRACIES

By focusing on collaboration and role-playing, StudioLab's critical design teams develop students' cultural, technological, and organizational skills. As we have seen, traditional writing classes generate individual critical thinkers, while StudioLab produces both individual makers and collaborative builders. Students learn to collaborate as critical design teams by tackling design problems and exploring solutions beyond those possible for individualized critical thinkers. Thus, StudioLab approaches art activist groups—as well as artisan guilds, theory schools, rap groups, and other start-ups—both as objects of study and as heuristic models for inventing the social practices of digital culture and critical design. Students sometimes extend their tutor groups' focus of action or activism, but most often they head out along new paths, incorporating conceptual, aesthetic, technical, and organizational insights into their own projects and production processes.

Art activist groups such as the Guerrilla Girls, Molleindustria, and the Yes Men can be understood as *intimate bureaucracies*, a term that dj readies/Craig Saper has coined for modes of 'participatory decentralization.'²⁷ Intimate bureaucracies enable collective action through common infrastructures such as the streets, the Internet, and other public services. As primary examples, dj readies cites Fluxus art and the Occupy Wall Street political movements and their respective use of the postal service and public parks as creative social media.

²⁷ dj readies, *Intimate Bureaucracies: A Manifesto* (Brooklyn, NY: Punctum Press, 2012), 1.

These forms of organization represent a paradoxical mix of artisanal production, mass-distribution techniques, and a belief in the democratizing potential of electronic and mechanical reproduction techniques. Borrowing from mass-culture image banks, these intimate bureaucracies play on forms of publicity common in societies of spectacles and public relations. Intimate bureaucracies have no demands, no singular ideology, nor righteous path.²⁸

Significantly, *dj readies* is a pen name (in our terms, a thought-action figure) for media theorist Craig J. Saper, who highlights the paradox of intimate bureaucracies: the impersonal institutions and procedures associated with bureaucracies are detoured or recircuited by artists, activists, and other community members for more singular, intimate ends. Within the context of higher education, colleges and universities—especially public institutions—have themselves long served as common infrastructures, providing access to resources and services through libraries, central IT, and physical spaces. A large part of education involves helping students learn ways to use these and many other infrastructures. However, whereas such learning often remains secondary or tacit in disciplinary training, it becomes central in StudioLab: becoming builder means building the emerging social and technical processes of post-ideational thought-action.

By combining singularity and institutions, intimate bureaucracies also help to formalize the infrastructural dimension of StudioLab's missions to democratize digitality and design and remix performative values. Intimate bureaucracies function as desiring-machines or joyful interactions that enable isolated artistic machines to become full-blown collective assemblages of enunciation, worlds of references and values. StudioLab's critical design teams thus seek to scale up creations of joy across different social planes by constructing heterotopias and other creative spaces that resonate with other social movements. In the terms of design thinking: the creative constraints of human desirability and technical feasibility find sustenance with those of economic or ecological viability, the ability to survive within a given milieu or environment. If design thinking brings the power of creative processes to large organizations, intimate bureaucracies bring the power of large organizations to creative processes. The student body is the site where these circuits intersect.

²⁸ Ibid.

DESIGN FRAME 2: UX

StudioLab's second critical design frame, UX or user experience, combines the power of digital rhetoric, transmedia knowledge, and collaborative problem-solving. While CAT focuses on conceptual, aesthetic, and technical traits of smart media works, our UX frame shifts the perspective around to focus on the experience of transmedia knowledge: on the different affects that texts, videos, websites, and other media produce with different stakeholders. UX design emerged from the field of human factors or ergonomics, which focuses on how humans interact with technical systems, and has become central to HCI or human-computer interaction. Yet research that started out focusing on end users ultimately puts their experience at the center—and preferably at the very beginning—of any design process. Today, user experience is a core skill set for designing a remarkably wide range of activities, from interfacing with smartphones to shopping in stores to experiencing large-scale environments such as theme parks and even college campuses, such as the Wisconsin Experience, the Berkeley Summer Experience, and innumerable First-Year Experience programs.

In many ways, UX has become an intimate mechanism of contemporary power and knowledge, operating through human-machine interactions and transmedia storytelling, marketing and branding, patient relations and student affairs—to mention just a few areas of application. In *The Experience Economy: Work Is Theater & Every Business a Stage*, B. Joseph Pine II and James H. Gilmore combine business management with theater and performance studies to argue that theme parks and other experience-based industries exemplify the emergence of a new economic stage. Building on agrarian, industrial, and service economies, the experience economy, they contend, produces and commodifies feelings, hopes, and memories.²⁹ While Pine and Gilmore laud Disney World as a paradigm of experiential economics, StudioLab's critical design perspective also brings into the frame the artist Banksy's *Dismaland* project. A large-scale collaboration, *Dismaland* detours Disney Land's meticulous UX design to expose other experiences of global performativity: the park is in shambles, the guides are belligerent, Cinderella's stagecoach becomes Princess Diana's car crash, and the lakes are full of oil and dotted with refugee boats.³⁰

²⁹ Joseph Pine II and James H. Gilmore, *The Experience Economy: Work Is Theater & Every Business a Stage* (Boston: Harvard Business School Press, 1999).

³⁰ See Christopher Jobson, "Welcome to Dismaland: A First Look at Banksy's New Art Exhibition Housed Inside a Dystopian Theme Park," *Colossal* web blog. August 20, 2015. Accessed February 22, 2019, <https://www.thisiscolossal.com/2015/08/dismaland/>.

Disney Land and *Dismaland* each constitute entire worlds of thought-action figures, and together they reveal the scalability and the pharmacological properties of UX design. Our UX frame contains three nested areas of focus, defined and refined over many years:³¹

- *Experience design*: the cognitive, emotional, and visceral impact on the audience
- *Information architecture*: the structure of this experience over time and space
- *Information design*: the look and feel of moment-to-moment experiences

Before defining these three areas more extensively, let us first describe them experientially through the design of a haunted house, whose overall UX design seeks to produce horror and fright. The experience design composes this UX through different components: designing the experience of a haunted house commonly involves building on visitors' expectations, heightening their anticipation, either slowly or immediately, suddenly shocking them silly, and then allowing after-shock relief and recovery—and then designing another fright show around the corner. The information architecture structures these experiences throughout the house: the headless figure appears here, the creepy passageway unfolds here, the room with brains and eyeballs happens here. The information design focuses in to compose discrete experiential moments: the bloody headless figure wearing a dark business suit jumps out of a hidden doorway into a dim vestibule; the pitch-black passageway winds around sharp wooden corners, pulsates with heartbeats and dog growls, and oozes with sticky goo on tattered wallpaper and uneven floors; the gray brains and translucent eyeballs float in bloody bowls in a dirty, garlicky kitchen packed with strange instruments, lit by a flickering, buzzing light bulb. Experience design, information architecture, and information design are nested inside one another, each collaboratively contributing to the overall user experience. A critical design team might embed a history of contemporary horror films into the house, with different guild members responsible for the costumes, sets, and lighting/sound, and the band jamming to compose the scariest possible encounter with Jason, Freddy, and Leatherface. As with the CAT

³¹ See Jon McKenzie, "Towards a Sociopoetics of Interface Design: etoy, eToys, TOYWAR" (*Strategies: A Journal of Theory, Culture and Politics* 14.1 (2001): 121–38). Other related areas commonly associated within UX include interaction design, visual design, and user testing.

frame, UX can potentially be applied to any experience, from bus rides to birthday parties to conference presentations. The UX frame provides a second set of glasses for analyzing, creating, and evaluating transmedia knowledge. Let us now take a closer look at each UX component.

Experience design refers to the *impact* produced on a given audience, impact that could be cognitive, emotional, or visceral—or a combination of all three. Through this experiential impact flows the aesthetic force of transmedia knowledge. Experience design approaches individual and collective experience as raw material that can be gathered, molded, and shaped, and then directed toward particular ends: experience thus has plasticity and potentiality as well as inertia and lack. Donald Norman, the cognitive scientist cum cognitive engineer who coined the term ‘user experience,’ argues that people bring cognitive models to any experience. Rather than impose a designer’s model—and especially an engineer’s model—upon a system, Norman contends that the interactive experience must be informed and shaped by the user’s expectations. He recommends making elements visible, using natural mapping to leverage familiar relationships, and providing clear feedback when they interact with the system.³² Brenda Laurel, a scholar, designer, and entrepreneur, has advocated for using theater as a model for designing human-computer interactions. Since theatre has been using multiple media to design the audiences experience for millennia, Laurel argues that the six elements of Aristotle’s *Poetics*—plot, character, thought/theme, diction/language, music/sound effects, and spectacle/visual effects—provide the basis of an effective experience design of digital media.³³ Norman’s and Laurel’s respective stress on cognitive models and dramatic elements help us see the value of approaching transmedia knowledge via media *genres*: genres are not only families of formal traits but also of sets of audience expectations, experiences that audiences expect and project into the future. Knowing these expectations, experience designers can then work with them, shaping experiences that meet, augment, and sometimes confound or mix expectations. The transmedia genre of Dance your Ph.D. combines two sets of experiential expectations that many see as contradictory—viewing modern dance and learning science—just as Bertolt Brecht’s epic theatre sought both to entertain and instruct. This mix defines a core affect of transmedia knowledge and digitality more generally.

³² See Donald Norman, *The Design of Everyday Things* (New York: Doubleday, 1990).

³³ See Brenda Laurel, *Computers as Theatre* (Reading, MA: Addison-Wesley, 1991).

Information architecture focuses on the *structure* of experiences, the way that multisensory information, materials, and interactions are organized and presented over time and space to create specific experiences. Experience is plastic, and information architecture helps to bend and shape experiences at large scale. Richard Saul Wurman, who first introduced the term ‘information architect’ (and founded TED talks), argues that information can be organized in five distinct ways: by Location, Alphabet, Time, Category, and Hierarchy. Using location, information architects shape experience spatially or geographically: for instance, clothing stores often place new items up front, sale items in the back, and the checkout counter in the middle. Travelogues often organize information geographically. Libraries organize books alphabetically, first by call numbers and then by author names; a book’s index organizes subject topics the same way. History museums often organize their exhibitions chronologically, structuring visitors’ experience by decades, centuries, even millennia; history books do so with events. Universities organize their campuses by categories, clustering different disciplines in colleges: arts and sciences, agriculture, engineering, business, medicine, and so on; their websites follow suit. Other organizations typically structure their workers hierarchically, with executive management, directors, team leaders, and team members occupying different spaces; organizational charts depict this hierarchy accordingly. In addition to Wurman’s LATCH, experiences can be organized around Analogy (e.g., using a computer’s *desktop*), Number (e.g., ‘remember these 3 things’), and Acronym (e.g., LATCH or ANALATCH). As we saw with Duarte’s sparkline, effective presentations often combine personal narrative (Time) and conceptual logic (Category), which demonstrates a more general point: all of these information architectures can be embedded in one another. A geology book can be organized by chapters on geological periods, subdivided into sections on geographical locations, then into paragraphs using categories, and the entire text wrapped up in a metaphorical title that can appear thematically throughout the book: *Spaceship Earth*, *The Pale Blue Dot*, and so on.

The third element of the UX frame, information design, refers to the *look and feel* of specific moments within the overall experience: the images, texts, sounds, colors, textures, and even smells of a particular webpage, chapter, room, scene, and so on. There is no UX without information design, as even a blank page, total darkness, silence, or white noise produces an experience. Given the dominance of visual perception, information design is often understood as visual or graphic design, in part because

of the pioneering work of Edward Tufte. Tufte's self-published books, especially *Envisioning Information*, combine exquisite writing and examples to demonstrate powerful techniques of information design. For instance, small multiples of images or graphs enable viewers to compare differences and similarities quickly. Skillful juxtaposition of scale allows one to grasp micro/macro relations. Fields of muted colors and thin grid lines punctuated with intensely colored points focus attention on crucial data and allow designers to layer and separate information, best exemplified in well-designed maps. Tufte's goal to escape the flatland of the page comes from his lengthy experience with print, and his focus on telling visual narratives with information embodies his ethos of presenting substantive content simply and elegantly. A provocative counterpoint to Tufte's somber, minimalist style can be found in David McCandless's *Information is Beautiful*. Like Tufte, McCandless prioritizes effective visualization of content, but his approach and sensibility produce strikingly different effects. Seeking to contextualize information, he juxtaposes relevant and surprising comparative data, such as the annual carbon footprints (in tons), of heating the average home (1.49), breathing (0.57), and one ton of beef (16), all represented with proportionally sized icons. Such juxtapositions produce revealing patterns of phenomena, dramatized by bright colors and striking uses of font styles. McCandless employs a pop sense of beauty and playful meta-perspectives, such as displaying his book's organization in different ways, depicting different types of visualizations in a table, and charting the year-long process of writing his book in terms of emails, emotional state sequencer, doubt tracker, and the formation of ideas.

Visual design is crucial to information design but sound design, tactical and haptic design, interactive design, even smell and taste can contribute to the overall user experience. A Catholic Mass, for instance, includes visual elements such as the crucifix and clerical garments; the sounds of the spoken liturgy, prayers, and music; the bodily movements of sitting, kneeling, standing, and approaching the altar; the smells of incense; and of course, the eating of consecrated bread and wine delivered by the clergy. The function of the Mass, like the experience design of many rituals in other cultures, entails transporting participants from a profane to a sacred space and back again, and such rituals typically involve a precise set of performances enacted in a particular temporal sequence and spatial structure using a prescribed set of materials and objects.

Experience design, information architecture, and information design are entangled within one another, and together create the overall user

experience. One can start anywhere, but UX design commonly begins with experience design, although a structure or discrete sound can trigger the process. Students occasionally have trouble untangling these areas at first, but we have found that carefully analyzing the impact, structure, and look and feel of the user experience of different but closely related media forms *and then having them make their own suites of transmedia knowledge* helps them to do so. To teach UX: define, demonstrate, and get out of the way.

STEEL, CAGE, AND REDESIGNING SILENCE

We can further distinguish the components of the UX frame by reanalyzing Steel Wagstaff's seminar paper, graphic essay, and video essay. As we saw using the CAT frame, the conceptual content remains largely constant across all three transmediations, while the aesthetic and technical aspects vary considerably. The UX frame reveals that the experience design—the intended impact—of the three works differ despite having the same conceptual content. The seminar paper primarily seeks to persuade readers of Cage's innovative approach to music, sound, and silence using argumentative logic and textual description and citation while establishing a distance between the analysis and its object. This critical distance is a defining power and affect of the literate technology of Plato's *Fight Club*: stop the music and analyze it. Wagstaff, however, also plays with this distance through a reflective writing style that brings footnotes and parenthetical remarks to the foreground, bringing the reader into a more intimate relationship with the scholarly apparatus.

The graphic essay transmediation creates a highly demonstrative, highly visual impact by adding images that both illustrate and supplement Wagstaff's argument, evoking additional associations, introducing nonlinear reading paths, and bringing the reader closer to both Cage and Wagstaff by visually blurring the boundaries of art and life, theory and practice. The video essay in turn brings the viewer/listener even closer to Cage and Wagstaff through the montage of moving images and narration over a rich sonic landscape, heightening the emotional impact and conceptual complexity. Interestingly, the underlying information architecture of Wagstaff's seminar paper, graphic essay, and video essay are consistent: the user experience is divided into three movements, each with its own section title. However, this structure takes on added dimensions with the addition, first, of an image track added to the written text in the graphic essay, and then with the video essay, a narrated moving image track with textual

script, music and other sonic elements. If the original seminar paper provided the specifications of a building, the graphic essay adds full-color and a punk-style 2D rendering, and the video essay a pulsating, 3D fly-through. This transformation of experience design and information architecture occurs moment by moment at the micro-level of information design. The seminar paper's single-sided, 8.5 × 1-inch white paper with black 12-point serif font and 1-inch margins becomes transmediated into double-sided, two-page spreads with full-bleeds (ink printed to the paper's edge), single and double columns of text, headlines and callouts, multiple fonts in different colors, as well as photographs of Cage, street signs, buildings, people signaling 'silence' with a finger over their mouth, and a closing image of Wagstaff. By introducing his body, his experience, his voice into the flow of transmediation, Wagstaff accomplishes the collapse of literate critical distance and the Fluxus breakdown of the art/life divide. Indeed, he embodies Cage's neoDada aesthetics with his own aesthetic choices, applying Cage's open-ended chance operations to his own cultural context.

We see and hear this steely Cagean blend most strongly in the video essay, where alongside the music and images of Cage, we find both historical and contemporary materials reflective of Wagstaff's own experience and tastes, including music clips from *The Big Bopper*, *The Beatles*, Bjork, and many others; all mixed together in an extraordinary sound design that rhythmically rhapsodizes a theory of Cage's music. If Plato's *Fight Club* stopped the music, StudioLab helps to restart it. Recalling Nietzsche's evocation of a 'music-making Socrates,' transmedia knowledge entails theory set to music—or theory produced through music. From text to graphic essay to video essay, Wagstaff transmediates the Cagean experience of silence, and in the video essay returns it to the medium of sound: we hear Cage speak, hear *3'44"* performed, and hear the silence around us.

The UX frame provides critical design teams a robust formal language for analyzing potentially any work of knowledge, cultural expression, or everyday life situation: for example, describe the UX of a favorite class, a party, or a work environment. As importantly, UX enables teams to design transmedia knowledge projects that seek to produce specific effects for different audiences—peers, community members, policymakers, and so on. It also empowers them to evaluate the efficacy of their work: for example, does this seminar paper, public presentation, or online video create the impact it seeks to produce? Finally, UX provides students with a valuable set of concepts and skills crucial to a wide variety of fields, including engineering, computer science, industrial design, marketing, and through

design thinking (as we will see in the next chapter), also management, social activism, and community-based research. Indeed, UX design, experience design, information architecture, and information design are each now career tracks. In its mission to democratize digitality by democratizing design, StudioLab seeks to refunction UX within the context of higher education to help transform the liberal arts.

EVALUATING COLLABORATIVE PLATFORMS

StudioLab's design frames address some of the most pressing challenges facing twenty-first-century higher education: how to assess 'born digital' student work, how to translate materials across emerging scholarly genres, and how to evaluate transmedia knowledge and collaborative academic projects? These frames can be combined in different ways, and here we extend CAT to evaluate the UX within critical design teams, that is, the students' own experience of collaboration. The different transmedia forms and the CAT design frame's conceptual, aesthetic, and technical components provide a first language to describe, analyze, create, and evaluate digital work, emerging scholarly genres, and transmedia knowledge. The CAT frame, however, can also be extended to enable both faculty and students to describe and assess the collaborative dimension of projects, the UX of critical design teams. By adding an O for organization, CAT becomes CATO, and collaboration emerges as part of the extended design frame. Self-organizing as critical design teams and role-playing within them, students perform specific roles and undertake assigned tasks, typically as writers, graphic designers, website designers, and producers. Students generally enjoy giving themselves playful titles and serious roles, as the formation of teams, bands, and guilds is explicitly framed as a collaborative RPG, a role-playing game. Part of the game's equipment is the CATO frame, which both the instructor and students use to oversee and evaluate the conceptual, aesthetic, technical, and organizational performance of team members. In many ways, the O helps everyone take care of the CAT—the organizational integration of conceptual, aesthetic, and technical dimensions; the relation between seminar, studio, and lab activities, and the accompanying circulation between team, band, and guild.

The O encompasses the organization, communication, and evaluation of collaborative and individual work within the intimate bureaucracy of the team. The Guerrilla Girls' self-description as a dysfunctional family points to both the joyful and painful potential of any collaborative project.

When groups enter into flow, collaborators' individual creative and critical energies converge seamlessly, and participants experience communal joy while undertaking even the most taxing of work—indeed, work becomes play. A space emerges, a collaborative platform, the desiring-machine's experiential architecture. Yet, as most everyone has experienced, collaboration can also become difficult, painful, and sometimes even hellish. Intimacy can be intimidating. Tensions can arise over the group or project's very definition and desired impact, over aesthetic decisions or technical execution, over contributions of individual team members, over scheduling, you name it. In addition to time management and workflow problems, we often see issues of gender come to the fore as male and female members display sexist attitudes toward each other. Racial and ethnic differences can also arise, as well as issues of ableism. And sometimes, interpersonal chemistries can become corrosive and even explosive. In all of these cases, individuals' creative and critical energies begin to diverge, and the desiring-machine can enter a black hole. Such tensions mirror those found in other collaborative contexts and in social situations at large. And incredibly, good and even great work is sometimes produced.

Rather than viewing these challenging, divergent energies as reasons to avoid collaboration, StudioLab approaches them as opportunities for critical discussion and creative syntheses. Unless these tensions are addressed, students can harbor frustrations around fairness and accountability that negatively affect their overall learning experience. Organizational performance entails sharing information and decision-making about group and project priorities, defining individual responsibilities, respecting different perspectives and skill levels, communicating work progress in a timely fashion, meeting project deadlines, and attending class and out-of-class meetings, and fulfilling group expectations and individual responsibilities. Instructors can get some sense of a group's organizational performance through observation and discussion, although sometimes groups prefer not to share emergent frustrations openly, often out of concern about grades or simply because they believe it is inappropriate due to the academic context. At other times, however, a student or two may approach instructors with issues about the group's overall workflow or a particular member not meeting their responsibilities. Here instructors become facilitators, meeting with the group to encourage better communication of expectations and responsibilities and, when appropriate, discuss the situation and seek a way forward. Here we can see issues of cultural efficacy, technical effectiveness, and organizational efficiency.

The most important aspect of CATO involves foregrounding the power dynamics of transmedia knowledge production by decentering the evaluative process to include both instructor and students. To this end, students evaluate their own group members' organizational performances, how well each individual contributes to the project, meets the group's self-defined expectations, and fulfills individual responsibilities. Thus, in addition to asking students to evaluate all group project presentations using CAT, we also ask each student to describe and assess their own group members' individual organizational performance using CATO: what were the individual responsibilities, and how well did each group member contribute to the conceptual, aesthetic, technical, and organizational success of the project? Once a major project is completed and turned in, students email their CAT and CATO evaluations to instructors, and these evaluations help inform the grading process, along with the group's transmedia (e.g., graphic essay, presentation media, website) and instructor observation.

By decentering the evaluative process and foregrounding the power dynamics within transmedia knowledge production, StudioLab enables students to think and act critically about their own work and the institutional role of performance evaluation in contemporary society. Further, as intimate bureaucracies begin working with other partners, such as community organizations, nonprofits, and local businesses, they encounter the evaluative frameworks and power setups at work in other collaborative platforms. It is by engaging these different frameworks that shared experiences of transmedia knowledge make possible the transvaluation of performative values.

EXPERIENTIAL ARCHITECTURES AND COLLECTIVE THOUGHT-ACTION

Becoming builder entails making shared experiences of transmedia knowledge as well as crafting the collaborative platforms through which to do so. The UX design frame extends beyond the impact of transmedia knowledge and into the social and technical aspects of creativity and critique, which are ignored by definition with the figural *dispositif* of the Romantic genius, who suffers isolation and misunderstanding while raging against society and the machine. Today, we recognize how constructed this thought-action figure has become, and also how powerful it remains: the

tortured artist, the mad scientist, the crazy entrepreneur—each is alive if not well, walking and talking all around us. But through this constructedness and survival, we can also recognize the sociotechnical systems that help produce and maintain this figure: popular culture, high culture, institutions such as education, business, journalism, and the Great Man version of history. We also recognize how the politics of gender, race, class, and species have shaped, and now challenge, its composition.

The figure of the Romantic genius, in short, is the product of modern, disciplinary design, and while the structure and details of its UX vary widely, historically, its dominant representation and experience design has been one of isolated suffering. By contrast, the postmodern UX of critical design teams—modeled on artist cells, rock bands, and start-ups—projects like a beacon the shared experience of joy, flow, and becoming. This is not to say that the Romantic genius does not produce joy: indeed, ecstatic, revelatory experiences of nature, the universe, or the sublime commonly characterize this figure. Nor is collaboration free from suffering and pain, individual or collective, far from it. Lots of bands and movements go into black holes. Yet these two figures emerged on different onto-historical strata with different societies and institutions, and today, they perform in anachronistic juxtaposition.

The formation of critical design teams entails shared experiences that produce platforms of intensity, interaction, trust, and communication—all unfolding in a common critico-creative project. We call such platforms *experiential architectures* to stress that the production of transmedia knowledge occurs not only across physical and digital spaces but also across experiential ones—and that the connection between these spaces is itself transmediated. In many ways, experiential architectures self-organize a team's inner workings, its desiring-machinations, and yet they simultaneously emerge in contact with an environmental milieu and an outside. Experiential architectures are shared platforms of transmedia knowledge common to both experimental desiring-machines and highly normative sociotechnical systems; they are what enable intimate bureaucracies to detour institutional flows and, alternatively, allow institutions to mine and appropriate mutant experiments. If we cast thought-action figures as dynamic or even chaotic systems, then experiential architectures are their surrounding environments, their uncanny homes. Philosophical systems, sacred cosmographies, secret societies, Facebook groups, college campuses, community centers, city streets, intimate bureaucracies—all constitute

homes or ecologies of collective thought-action. All constitute experiential architectures, small and large.

Critical design teams make thought-action figures and build the experiential architectures that support and house them. Experiential architectures enable the scalability and sustainability of transmedia knowledge and performative transvaluations, both within critical design teams and in their engagement with others. The experience of building platforms for collective thought-action radiates outward from teams to partners and stakeholders, whether these be peers, communities, policymakers, general public, and so on. Once again, the collaborative production of tactical media and protest events by activist groups provide important lessons here. In its early years, ACT-UP member Jon Greenberg connected the external goal of the group's demonstrations—to force their targets to change AIDS-related health policies—to their internal goal: the transformation of anger and fear within ACT-UP members themselves.

Anger is not empowerment. Knowledge is empowerment. But the anger has to be released (sometimes a lot of it, for a long time) before we can allow the knowledge to flow as freely as it should. ACT UP demonstrations are primal scream therapy for people who would never voluntarily engage in primal scream therapy. Get the anger out so we can open up to love, knowledge and power.³⁴

Demonstrations are shared transmedia experiences: through signs and banners, songs and marches, media disturbances and public protests, ACT-UP connects the group's collaborative platform—its experiential architecture of anger and love, knowledge and power—with others, in order to gain empathy with hospitals and pharmaceutical companies, politicians and policymakers, the media and the general public. ACT-UP explicitly draws on the civil disobedience tradition of Gandhi and King, whose collective actions likewise entailed transforming anger and fear into love, knowledge, and empowerment. Through such experiential architectures, the shared UX of collective thought-action comes into focus, and we can better understand the experience design of becoming maker, becoming builder, and becoming cosmographer. One works on oneself in a collaborative team with larger communities.

³⁴ Jon Greenberg, "ACT UP Explained" www.actupny.org/documents/greenbergAU.html, accessed November 19, 2018.

WHAT COULD BE: A THOUSAND PLATOS

To democratize digitality, StudioLab seeks to democratize design, which entails not just becoming maker of transmedia knowledge but also becoming builder of collaborative platforms. Critical thinking becomes critical design through collective thought-action, extending students' experiential architectures out into the field. In *A Thousand Plateaus*, Deleuze and Guattari speak of a plane of consistency composed of 'assemblages capable of plugging into desire, of effectively taking charge of desires, of assuring their continuous connections and transversal tie-ins.'³⁵ Critical design teams' collaborative experiences generate such planes of consistency; first, as students role-play and self-organize into intimate bureaucracies with roles and brands, projects and production processes—as makers become builders—and then second, as these intimate bureaucracies begin interacting with other teams and eventually with different partners and stakeholders—that is, as builders start to become cosmographers or co-designers of worlds. Planes of consistency enable desiring-machines' collaborative platforms to scale and survive, and while the CAT and UX design frames facilitate these transformations of the student body, StudioLab's plane of consistency really takes off with the DT frame, which assigns shared media a generative role within its post-ideational design process while prioritizing the place of human desirability.

Desire has a long history in Plato's *Fight Club* and includes both sexual and community relations. From our perspective, the Academy started as out as a small desiring-machine whose experiential architecture consisted of columns and gardens as well as symposia, texts, and temperaments. Sloterdijk asserts that Plato established the Academy to get the gadfly Socrates off the streets and into a safe place.³⁶ Within the *Fight Club*, Plato and crew wrestled with poetry and sophistry and also with wrestling itself, the homosocial, pederastic traditions of Archaic and Classical Greece. Plato's *Fight Club* famously countered this erotic love with another all-too-male intimacy; the Academy espoused what would become known as Platonic love, *philo-sophia*, the love of wisdom, defined as the knowledge of ideal forms—*eidos*. Extending this strange new desiring-machine and its experiential architecture back out into the world and constructing a plane

³⁵ Gilles Deleuze and Felix Guattari, *A Thousand Plateaus* (Minneapolis: University of Minnesota Press, 1987), 166.

³⁶ See Peter Sloterdijk, *Critique of Cynical Reason* (Minneapolis: University of Minnesota Press, 2008).

of consistency there would prove both rewarding and costly—and would extend far beyond the lives of these early academicians. The rockiness of the Fight Club’s community engagement in Athens has likewise become famous—and infamous—through the trial and death of Socrates, but nevertheless its plane would prove to be both scalable and sustainable for millennia. Plato’s Academy survived for centuries in Greece and later became a paradigm of universal reason replicated around the world. Today, there are over 26,000 universities worldwide, a global network of Fight Clubs, many arrayed with white columns and campus gardens, all hosting symposia. This experiential architecture remained an almost exclusively phallogocentric affair well into the twentieth century.

Thus, along the way, indeed from the very start, the Platonic plane of consistency harbored what Deleuze and Guattari call a plane of organization, a second plane which ‘concerns the development of forms and the formation of subjects.’³⁷ Their notion of Body without Organs, borrowed from Antonin Artaud, deterritorializes this plane of organization into the plane of consistency, while Organs without Bodies territorialize its flows into forms. Indeed, such a plane of organization constitutes a defining feature of Platonic thought, which adds a plane of transcendent, ideational forms over the world ($n + 1$), while the plane of consistency extends itself immanently, its multiplicities subtracting the unity of forms and subjects into flows of intensity ($n - 1$).³⁸ One event happened over there-then; the other unfolds here-now. As intimated earlier, for critical design teams, experiential architectures connect their desiring-machines with sociotechnical systems. These collaborative platforms are also places where the planes of consistency and organization encounter one another—and do so through transmedia knowledge and collective thought-action. Like transmedia knowledge, collaborative platforms are pharmakological, undecidable, able to pass into planes of consistency or organization. This multivalency is both the risk and the chance of intimate bureaucracies as they become cosmographic.

To draw together this book’s experiential architecture and extend it outward: broadly speaking, Plato, collaborative platforms, and planes of consistency all compose a *plateau* that stretches back through English, Spanish, French, and Latin worlds to the Greek word *platus*—‘broad.’ But why stop in this place?

³⁷ Ibid., 265.

³⁸ Ibid., 21.

We call a ‘plateau’ any multiplicity connected to other multiplicities by superficial underground stems in such a way as to form or extend a rhizome. We are writing this book as a rhizome. It is composed of plateaus. We have given it a circular form, but only for laughs.³⁹

Play, too, plays its part on our Platonic plateau: *play*, from the Old English *pleg(i)an* ‘to exercise’, *plega* ‘brisk movement’, related to Middle Dutch *pleien* ‘to leap for joy, dance.’ Dancing Plato as joyful multiplicity: a thousand Platos playing on twenty-six thousand plateaus with platters and plates, places and plans all up in the air—everything cascading across different media forms and collaborative platforms, nothing taking place but the place.

Often dismissed within ideational knowledge as word-play, visual puns, or mere coincidence, such plateaus *make another sense possible* in transmedia knowledge, the sense of collective thought-action figuration, which resonates here and there with philharmonic orchestras and techno raves, *feng shui* and dream time. On this plateau, the tree experiences the rhizome as contagion, and contagion it is. Artaud, a maker of plays, poems, drawings, theory, and radio, tunes us into all this from beyond:

The plague takes images that are dormant, a latent disorder, and suddenly extends them into the most extreme gestures; the theater also takes gestures and pushes them as far as they will go: like the plague it reforges the chain between what is and what is not, between the virtuality of the possible and what already exists in materialized nature.⁴⁰

Shuttling between what is and what is not, between factuals and counterfactuals, what is and what could be, critical design teams build experiential architectures for generating other possible worlds. The plateau of the field awaits.

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³⁹ *Ibid.*, 2.

⁴⁰ Antonin Artaud, *The Theater and Its Double* (New York: Grove Press), 27.

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