CHAPTER 1

Wrestling with Plato's Fight Club

Fig. 1.1 Cornell entomologist Michael Hoffmann speaks at the March for Science rally, Ithaca Commons, Ithaca, New York, April 22, 2017. (Photo by author)

J. McKenzie, *Transmedia Knowledge for Liberal Arts and Community Engagement*, Digital Education and Learning,
https://doi.org/10.1007/978-3-030-20574-4_1

The Academy as Fight Club

Recent books tell the story: *Liberal Arts at the Brink*, *In Defense of a Liberal Education*, *Crisis in Higher Education: A Plan to Save Small Liberal Arts Colleges in America*, *Unmaking of the Public University: The Forty-Year Assault on the Middle Class*, *Beyond the University: Why Liberal Education Matters*.[1] The academy is fighting for its life. For years, the liberal arts and the humanities in particular have been fighting to stress their importance to society. College and university scandals regularly make front-page news, politicians scrutinize and threaten funding—even scientists are marching in the streets (Fig. 1.1)—and anxious parents steer their children away from liberal arts majors. Students and instructors feel this crisis in other ways too, from protests over race, gender, and tuition to policies affecting sanctuary campuses and the closing of departments or entire campuses—all within a widening sense that liberal arts education has lost its way, if not its value.

The academy, of course, has a long history of fighting, starting with Plato's Academy in ancient Athens. Plato, originally named Aristocles after his grandfather, reportedly started his career as a wrestler, and his broad physique earned him the nickname Plato, as *Platon* in Greek meant 'broad'. But the wrestler Plato turned from fighting with his body to fighting with words, and as a philosopher he founded his Academy as a dialectical Fight Club in order to take on a very different competitor: the Homeric rhapsodists whose myths, songs, and dances, he claimed, could only repeat common knowledge or *doxa* and thus not produce true knowledge or *episteme*. A societal battle raged over how best to raise the Athenian youth: whether they should continue their immersion in the Homeric tradition with its myths (*mythos*) and images (*imagos*), or whether they should learn new forms of thinking and discourse, those of ideas (*eidos*) and logic (*logos*), taught by the philosophers.

[1] See Victor E Ferrall, *Liberal Arts at the Brink*. Cambridge (MA: Harvard University Press, 2011); Fareed Zakaria, *In Defense of a Liberal Education* (New York: W.W. Norton & Company, 2015); Jeffrey R. Docking, *Crisis in Higher Education: A Plan to Save Small Liberal Arts Colleges in America* (East Lansing, MI: Michigan State University Press, 2015); Newfield, Christopher. *Unmaking the Public University: The Forty-year Assault on the Middle Class* (Cambridge, MA: Harvard University Press, 2008); and Michael S. Roth, *Beyond the University: Why Liberal Education Matters* (New Haven: Yale University Press, 2014).

The fight was thus about media. In *The Republic*, Plato famously excluded the poets from his vision of the ideal city, and his victory over both Homer and the sophists enabled his Academy to shape the forms, practices, and primary audience of education and research for centuries to come. Media other than writing, such as music, dance, and song, would largely become art (*mimesis*) and cease to function as means of knowledge, thereby establishing logocentric (logic-based) writing and speech as the only legitimate media of thought. Today amidst the crisis of the liberal arts, we must grapple with this Platonic tradition, not to overthrow or toss this tradition out of the ring, but to reconfigure it from the bottom up. For centuries, Platonism has transmediated the world into logocentric writing. The time has come to transmediate knowledge in other media for other audiences in addition to scholars. Outdated modes of teaching, learning, and sharing research prevent the liberal arts from fully engaging its contemporary societal challenges and, as importantly, its own students. *StudioLab Manifesto* wrestles with Plato's Fight Club.

StudioLab is a hybrid pedagogy attuned to fundamental transformations in twenty-first-century social institutions and societies, especially at the levels of values, practices, and media. We can sketch some key tensions between traditional and emerging institutional forms and also consider some work-arounds.

Traditional forms and practices	*Emerging forms and practices*
Disciplinary knowledges and interdisciplinary collaboration within the institution	Transdisciplinary knowledges and extra-disciplinary collaboration outside the institution
Separation of seminar, studio, and lab to divide conceptual, aesthetic, and technical learning	Mix of seminar, studio, lab, and field to integrate conceptual, aesthetic, and technical learning
Scholars as solitary Romantic geniuses	Scholars as idiosyncratic collaborators
Values of originality and specialized skill	Values of recombination and multiple skills
Monomedia knowledge production (print)	Transmedia knowledge production
Tutor cultural forms: nineteenth-century essay, novel, painting, classical music, ballet, realist drama	Tutor cultural forms: twentieth-century magazine, film, radio, graphic design, hip hop, performance
Division of high culture and popular culture	Mixing of high cultures and popular cultures
Publication of research for fellow researchers	Publication and sharing of research for fellow researchers, specific communities, policymakers, and general public

The university traditionally organizes knowledge into separate departments with specialized faculty who hold terminal degrees and teach in distinct types of learning environments: studios for art and design, seminars for the humanities and social sciences, and labs for the sciences and engineering. The goal has been to train and produce individual students and scholars based on the model of the Romantic genius, whose originality and virtuosity make them exemplars in their field. In the wake of the Gutenberg revolution, modern knowledge production has been almost entirely monomedia, and the power of alphabetic print is captured in the motto 'publish or perish.' The university typically organizes both media training and study into distinct monomedia, with writing required for everyone, and visual arts, literature, music, dance, and theater divided up and then separated off for tiny populations in art and design schools. In the liberal arts, the privileging of nineteenth-century cultural forms made sense in the twentieth century, as these forms provided the models for contemporary intellectual and cultural movements. Today, however, the continued predominance of nineteenth-century cultural forms helps to maintain and increase the divide between high and popular cultural forms—even though these nineteenth-century forms were once considered popular culture, today, they are seen as high culture. More importantly, this predominance forestalls the emergence of conceptual, aesthetic, technical, and organizational languages and skills to work in contemporary transmedia forms shared with multiple audiences. Needless to say, the tension between high and popular culture is further increased by the continuing dominance of the book and written essay as the privileged media of knowledge production and the marginalization of media genres that speak to non-specialized audiences.

We may seem to be opposing these two sets of forms and practices, but imaginative faculty, students, and administrators have been finding ways to overcome and work around these distinctions by creating more transversal practices and media. Increasingly, federal grants seek projects involving teams of inter- and transdisciplinary research teams, and foundations offer funds to introduce the liberal arts into professional fields. Administrators and faculty also seek out opportunities for team-taught courses providing multiple disciplinary perspectives around a single topic, and students themselves combine and integrate disciplinary knowledges through dual majors and minors that take them across diverse fields. Community-based research and service-learning courses provide opportunities for students to engage their college learning with communities who have different sets of local concerns and knowledges. And both scholars and communities have

begun working in media forms such as TED Talks, PechaKuchas, podcasts, blogs, and info comics. Yet despite these encouraging developments across many disciplines, the liberal arts and higher education in general lack a coherent and accessible digital pedagogy that can be used by potentially any field or department.

Critical Thinking and the Historical Crisis of the Liberal Arts

If one is willing to enter the contemporary educational battle, it helps to know more about the history and terrain of the crisis affecting Plato's Fight Club today. The critical thinking at the basis of first-year writing in universities and colleges remains crucially important at this historical moment when democratic institutions and practices of civil discourse have weakened and come under threat. In a time marked by 'fake news' and 'post-truth,' critical thinking becomes both more necessary and yet more insufficient on its own. If arguments alone sufficed, higher education would not be in crisis. In the US, *critical thinking* means using evidence and logic as a guide to decision-making and is considered an Essential Learning Outcome (ELO) by the Association of American Colleges and Universities. These ELOs inform the evaluation and assessment of academic programs across the US, and most entering students are required to take first-year writing courses because educational leaders believe that critical thinking is essential to becoming not only a successful student but also an informed and engaged citizen. Indeed, the StudioLab pedagogy is designed for students to build on their first-year writing courses at any stage in their studies, extending their critical thinking into critical design and digital media. This extension defines StudioLab's approach.

The battle of ideas lies at the heart of modern democracies, and this book argues that traditional critical thinking and academic writing alone are no longer sufficient for entering into public debates or, moreover, for conducting expert research. StudioLab is informed by the critical thinking of structuralism, feminism, psychoanalysis, critical theory, deconstruction, and postcolonialist theory: decades of critiques, built on centuries of critiques stretching back to Kant, all suggest one thing: critiquing media is like praying against science. Words and written arguments alone are not enough.

To critical thinking and writing we must add *critical design* and *digital media*, design and media that move across many forms in order to engage

different audiences and open new avenues for thought and action. In particular, tactical media practices from art activism, along with human-centered design practices from industrial engineering, can reinvigorate critical thinking and introduce *post-ideational thinking*: a type of thinking based across shared media and popular knowledge and not just the phonetic alphabetic and expert knowledge. The Academy created ideas; StudioLab creates thought-action figures: a wrestling Plato, a Fight Club, the music of ELO.

We can better understand the importance of critical design and digital media by placing the crisis of the liberal arts within a nested set of broader historical contexts. Universities around the globe face daunting economic and political pressures to transform themselves—and the liberal arts in particular have suffered criticism, reorganization, and a crisis of identity. Student protests have become common in the US, Latin America, India, and Europe. What historical forces inform this situation? In the US, the current crisis has at least four historical sources, sources that lead from a California tax revolt all the way back to Plato's original Fight Club. Understanding these sources, which resonate around the world, can help us see both the challenges and opportunities before the liberal arts. Nested within one another, each historical source is deep and profound.

1. The most evident contemporary source is public policies associated with *neoliberal, Hayekian (supply-side) economics*, in particular, the crisis in funding for public education, jump-started by the 1978 California tax revolt of Proposition 13. The effects of the statewide tax revolt have spread nationally for decades and continue to affect US public schools and universities through the efforts of organizations such as the American Legislative Exchange Council (ALEC), which supports reducing public funding for education and undermining faculty governance and academic freedom. The recent election of Donald Trump as US President, and his appointments of Betsy DeVos as Secretary of Education and Rick Perry as Secretary of Energy, threaten both public school education and advanced research in unprecedented ways, and attacks on sanctuary campuses offering refuge for immigrants threaten the very culture of higher education. Colleges and universities have responded to these recent developments in various ways: from protests to official proclamations of inclusivity to nuanced policy and program changes designed to engage communities with public scholarship and service learning. This book

argues that in addition to academic writing and expert arguments, popular media forms and digital rhetoric are needed to engage communities, change public opinion, and persuade policymakers of the importance of liberal arts and higher education in general.

2. A broader but less visible source of the contemporary crisis is the *unwinding of the Cold War since 1989*. Cold War funding expanded campuses in the 1950s, 1960s, 1970s, and 1980s, by building and staffing massive research centers that transformed research, teaching, and campus life. Major federal funding for the sciences (e.g., aeronautics, computer science) and the humanities (e.g., Title VI area studies and foreign language programs) began in the 1950s and helped to create America's modern research universities. However, in the decades since the ending of the Cold War, cuts in basic science research and international programs, as well as the 2013 sequestration or withholding of federal funding, have dramatically affected universities' research and teaching missions, and proposed cuts to the NIH (National Institute of Health), EPA (Environmental Protection Agency), and NOAA (National Oceanic and Atmospheric Administration) could dramatically worsen the situation. It is perhaps ironic that research universities that helped the Department of Defense build the Internet's foundational infrastructure, the Advanced Research Project Agency Network (ARPANET), now struggle to integrate digital practices into their learning activities. Yet notably in 1990, just after the Berlin Wall fell, a new hypertext markup language (HTML) began transmediating the command-line interface (CLI) of the emerging Internet (a portmanteau of *interconnected networks*) into the graphic user interfaces (GUIs) that would define the worldwide web (WWW). What the liberal arts need is an image of thought both multimediated and networked.
3. While the Cold War takes us back decades, another source of our contemporary crisis runs back centuries, to the dawn of the Enlightenment and the modern era. From Rene Descartes' renewal of Plato's *eidos* as ideas founded in human subjects, there arose modern philosophy, science, and humanities, all later supported by such grand narratives as national destiny, class revolution, and Enlightened progress. These narratives, grounded in human subjectivity and universal reason, helped to self-legitimate Western knowledge and power for centuries. However, as Jean-François Lyotard argued in his landmark text *The Postmodern Condition: A Report on*

Knowledge, these modern grand narratives began to decline after World War II with the rise of computerized societies.[2] Modern, universalist grand narratives have lost their traction with the general public and with decision-makers, and now colleges and academic departments struggle to articulate strategic visions and justify their work through performance metrics of inputs and outputs, what Lyotard calls *performativity*. For the liberal arts, such strategic visions and quantitative justifications via performativity smack of raw instrumentalism and have been difficult to imagine, much less articulate with any deep enthusiasm, yet Essential Learning Outcomes and the UK's Research Assessment Framework themselves embody our postmodern condition. What is needed are strategies to engage the dominant performative values of technological effectiveness (doing something successfully) and organizational efficiency (doing it sustainably) with performative values of cultural efficacy (doing the right thing in the first place). In a very real sense, we need to learn to argue and story-tell not only with words and images but also with numbers and diagrams, affects and actions. More importantly, we need to do this with audiences beyond ourselves.

4. With the best and worst of intentions, European modernity sought to export its neoclassical ideals and institutions around the world, creating markets, nation-states, and universities. Alongside its revolutions in science, art, and politics, Western civilization's exploitation and destruction of indigenous peoples and cultures, the alarming effects of global climate change, and post-Enlightenment critiques of *eidos* and *logos* have exposed and radically relativized its universalist pretensions to both master and liberate the world. In the contemporary global crisis, relying solely on specialized knowledge may not be the only solution and, indeed, may be part of the problem. In a very real sense, the presumptiveness of expertise and *epistemic* knowledge has been called into question not only by large parts of the global public and many decision-makers but also by some experts and philosophers themselves. What is needed is a much more holistic, inclusive sense of knowledge, something like a *global transmedia wisdom*.

With this set of historical frames, one can better understand how and why the liberal arts and the university have entered a crisis phase, and also

[2] Jean-François Lyotard, *The Postmodern Condition* (Minneapolis: The University of Minnesota Press, 1986).

why critical thinking and Plato's Fight Club need to be transformed and transmediated. The relation between *eidos* and *imagos*, *logos* and *mythos*, *episteme* and *doxas* all need to be rethought, *reconfigured*. What if these foundational terms were not opposed? What if ideas and images, argument and story, expert knowledge and common knowledge could be *remixed*, just as DJs and VJs mix sounds and words, beats and images? What if critical thinking could be *redesigned* to make new arguments, use new evidence, and reach new audiences? This is the first mission of StudioLab: *to democratize digitality, just as nineteenth-century public education sought to democratize literacy*. Digitality is to literacy what Platonic literacy was to Homeric orality: a world-altering transformation facilitated by fundamental changes in identity and social formation, cultural production, and communication technology. The digitalization of knowledge and power allows us to overlay the four historical frames that shape the crisis of the liberal arts, and thereby begin to imagine and design a different academy.

The Audiovisual Alphabet and the Power of *Logos*

Wrestling with Plato's Fight Club means wrestling with the medium of its power. Plato's victory over Homer was in large part a media victory, one whose legacy informs today's crisis of the liberal arts. As Eric Havelock argues in his *Preface to Plato*, philosophy begins by stopping the flow of Homeric performance, analyzing the text to extract and gather occurrences of actions and character traits, and then forming generalizations.[3] Most important, it begins by raising the critical question 'what is X?' (i.e., what is bravery, wisdom, justice?) and consequently proposing abstract general concepts or ideas. Plato triumphed over the Homeric tradition by using the phonetic alphabet to stop the music and dance and interrupt the mimetic flow with dialectical questions, and the alphabet has remained the academy's media apparatus or sociotechnical platform for millennia. Now, however, its function as a meta-technology has been displaced by another.

StudioLab argues for a shift in the design and use of alphabetic writing practices that have persisted since the early academy. For decades, books have been epiphenomena of digitality: this book was researched using databases, composed in Microsoft Word, GIMP, and Keynote, transmitted and revised via email, transferred into XML and edited, printed on digital presses, and marketed and distributed via online websites and libraries. Much like the theater director Antonin Artaud, who sought to

[3] Erik Havelock, *Preface to Plato* (Cambridge: Harvard University Press, 1963).

reinscribe the dramatic text within a theater of sounds, images, and gestures, we propose creating knowledge in a transmedia space of learning and research. Students and instructors may be so accustomed to alphabetic writing that we often fail to recognize that *it is a medium*, and indeed, *an audiovisual medium*: each graphic letter of the phonetic alphabet corresponds to a small set of sounds whose translation most of us learn to make as small children, first by following the letters with our fingers and saying the sounds out loud, and then later silently internalizing the translation by learning to read the letters 'inside' our heads, moving only our eyes. We are taught to not move our lips—and barely our eyes—so that the translation seems purely abstract, non-material. Reading aloud then appears as an almost magical process—passing our eyes over lines of silent graphic letters and uttering precise sounds as meaningful words—even while the magic gets lost in educational contexts at national scales. As audiovisual medium, the alphabet has shaped not just the ways we communicate but our very image of thought and our methods of knowledge production. Separation of mind and body, knower and known, cause and effect, genus and species: all come bundled within the literate apparatus.

The truth and knowledge born in Classical Greece are not the only things at stake in the crisis of the liberal arts; power and history are at stake as well, for in the modern era, Plato's Fight Club Academy was exported around the world in the eighteenth and nineteenth centuries as a central part of European colonialism. All the terms that end in *-logy* (anthropology, biology, geology, physiology, psychology, sociology, zoology—just to scratch the surface) are intertwined within the platform of alphabetic learning. Phonetic writing functioned as a certain *techno-logos* to build and legitimate disciplinary fields as proper knowledge, as true, epistemic knowledge rather than common opinion. Plato's Fight Club of dialectical argumentation was institutionalized worldwide as universal reason through academies, government and legal systems, and even Neoclassical architecture with its columns and gardens. All helped to vanquish the 'superstitious' images and myths of innumerable indigenous peoples by imposing instead Western ideals in the name of Civilization, Progress, and Enlightenment. Entering History meant entering writing, and the privileging of the alphabet meant excluding or domesticating other media and cultural forms as legitimate forms and methods of knowledge.

While Plato banned poets and artists from the Republic, Aristotle effectively rescued and housed them in a category we today call Aesthetics—an accommodation many find comforting to this day, even though it has historically excluded other media production from constituting proper

knowledge. Thus one studies such media and their accompanying sensory experiences as art, and only sporadically has it been valorized as knowledge production in non-art contexts. Traditionally, art has provided models, inspiration, and even methods, but its status as mimesis or mere representation limits its dialectical force. A second domestication has occurred with indigenous practices and systems of thought: they were not banned outright from the academy but assigned special places as 'culture' within anthropology departments and cultural archives, where they could be written about as objects of study, their rituals, images, and myths being analyzed using methods, ideas, and logic. A third domestication has occurred with popular culture, such as comics and graphic novels, games, websites, and YouTube videos. From the traditional perspective of the academy, these and other forms of popular media are, like Homeric epics and indigenous rituals, full of images and myths (i.e., ideologies) and thus best approached—and fought off—as objects of study, using methods, ideas, and logic in fields such as visual culture, cultural studies, and media studies. What all this means from the perspective of this book: these different practices and forms, deprived of their potential as knowledge production, are reduced to objects and regularly translated (interpreted, critiqued, explained) into highly normalized media forms in a single medium: the academic essay and book, written with the alphabet. Platonism transmediates the world into text.

The alphabet is thus a powerful media technology, arguably the most powerful technology ever invented, for its invention helped to structure some of the founding distinctions of Western culture—those between knowledge and opinion, ideas and images, logic and story, and a host of others. This hierarchical model of organizing knowledge still dominates the academy's approach to the world. For this reason, philosopher Jacques Derrida in his manifesto *Of Grammatology* characterized 'logocentrism' or the centrality of Platonic thought and phonetic writing as 'the most original and powerful ethnocentrism, in the process of imposing itself upon the world'.[4] Derrida went on to coin such terms as 'carnophallogocentrism' to describe the nexus of the power relations connecting ethnicity, gender, race, class, and species to *logos* and the Western metaphysics of presence embodied in speech and phonetic writing. But Derrida's alternative, 'generalized writing,' did not propose to overturn phonetic writing but rather

[4] Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak, 1967 (Baltimore: Johns Hopkins University Press, 1976), 3.

reinscribe it within a more general and open space, and also drew on Artaud to theorize this displacement. So too, we seek to revitalize the liberal arts by resituating writing and critical thinking within design and emerging genres of digital scholarship—websites, video essays, theory comics, podcasts, and graphic essays—genres that not only speak to scholars but also engage communities, policymakers, and the general public in more powerful, efficacious ways than the traditional genres of academic essays and books.

Today, amidst the crisis of the liberal arts, a media battle unfolds between the monomedia academy and multimedia popular culture. In college, students may study literature, performance, and digital media, but overwhelmingly, they are assigned to write academic essays about them. Unless students major in the arts, information science, communication, or engineering, many have likely not *made* anything with any media other than the alphabet—or more specifically, they make primarily in Microsoft Word or an analogous word-processing program. StudioLab offers a transmedia, transdisciplinary approach to culture and knowledge production, one that transforms students from consumers to makers and beyond. This approach reaches out across campus to connect the liberal arts to information science, communication, and engineering, and out into the communities and public spaces in order to connect the power of critical thinking and media design to other urgent means and ends. At a time when universities nationwide strive to tell their stories, StudioLab puts transmedia storytelling and knowledge into the hands of students and faculty alike, so that they can better stake their claims.

From Consumers to Makers: Transmedia Knowledge Production

Imagine reversing the engines of logocentric translation, reversing the flow of knowledge and power from alphabetic writing back into the rhythms of Homer, the rituals of indigenous practices, and the media of popular culture. *That's what StudioLab is all about*: learning to translate or *transmediate* knowledge and power across different media forms for different audiences. In particular, transmediating knowledge and power into popular forms of digital media such as video, games, website, comics, and multimedia presentations and installations. In StudioLab, students learn to make new kinds of arguments and use new kinds of evidence within new expressive media forms, forms that connect not just with specialists

but with local communities, family and friends, potential employers, and the general public. It means bringing expert knowledge into a different relationship with common knowledge, and the liberal arts into a different relation with communities and the world.

The power of writing has transformed the world as a cognitive catalyst. More than simply communicating thought, writing *generates thought*, or rather, a very specific kind of thought called 'ideation'—thinking in ideas. Plato helped to invent ideas—the forms he called *eidos*, the eternal abstract forms his Fight Club championed against Homeric image-thinking, based on *imagos*. In the *Discourse on Method*, Descartes updated Plato's *eidos* as 'clear and distinct *ideas*' of human subjects.[5] The ideational thought taught in first-year writing seminars—critical thinking—is modernized Fight Club thinking. Arguments consist of fighting with logic and evidence, and critical thinking remains so important that first-year writing is required of nearly all those entering college. In fact, it is virtually the only course required for every college student: everyone trains to write and spar in Plato's Fight Club! And that's a good thing, for the alphabet remains a very powerful media technology. Through StudioLab, students become even better writers by learning to compose in many more media genres.

Media training must include alphabetic writing but not begin and end there, for there are many other ways to engage thoughtfully with different audiences, materials, and media. Laptops and iPhones contain software programs and apps that turn them into cameras, microphones, video-editors, music studios, photo labs, graphic design studios, website platforms, multimedia presentation machines, and a host of social media platforms for publishing and sharing diverse media. If only there were classes, exercises, and projects that regularly called on students to use these common programs and apps in critical and creative ways—and did so not just in media or communication departments but potentially any field of study. StudioLab offers such classes, exercises, and projects. It is one thing to write a paper on contemporary digital culture; it is another to design and make digital media and enter into the cultural battle for higher education and the liberal arts using arguments and evidence drawn from a variety of sources, both expert and common. *In StudioLab, students move from consumers to makers of media—and then become builders of collaborative platforms, and then, cosmographers or co-creators of worlds.*

[5] René Descartes, *Discourse on Method* (New York: Liberal Arts Press, 1956).

From Makers to Builders: StudioLab as Critical Design Pedagogy

One may have never thought of oneself as a maker—and certainly not one on a mission to democratize digitality. We can define digitality as the global reinscription of gestural, oral, visual, literate, and numerate archives into the network of computerized databases (the Internet) and the accompanying changes in identity formation, social organization, and ontological worldview (one's sense of being in the world). StudioLab seeks to play a role in digitality analogous to the Academy in literacy: to help students become makers, producers of transmedia knowledge, knowledge based however in bottom-up, common wisdom and multimedia rather than top-down, expert knowledge based on the sole medium of writing.

To democratize digitality, StudioLab has a second mission: *to democratize design, to help make design's mix of conceptual, aesthetic, and technical skills as common as that of writing, and thereby connect critical and creative thinking through collaborative building*. Alongside Writing across Disciplines courses, we need Designing across Disciplines courses or, more simply, formalized transmedia projects within curricula where students regularly collaborate to produce papers, presentations, posters, and other media projects designed for and, if possible, co-designed with multiple stakeholders. What is missing from the liberal arts, and higher education in general, is a formal language for describing and coordinating the different forms and functions of such transmedia knowledge—and for producing this knowledge in scalable, sustainable ways. *Design provides this language and production platform*. The artist Joseph Beuys once said, 'everyone is an artist.' StudioLab says, 'everyone is a designer.'

Taking up the mission of democratizing design, StudioLab teaches not only to make media but also to approach school and other institutions as sociotechnical infrastructures for creating events and resources. *At this level, students become builders of collaborative platforms and shared experiences.* Mixing critical thinking and new media, students work together performing seminar, studio, and lab activities usually dispersed far across campus: seminars unfold in the humanities and social sciences, studio courses in art and design, and lab work in sciences and engineering. StudioLab students can combine these activities in a single space by mixing critical thinking, media-making, and human-centered design in coor-

dinated projects. This collaborative, building dimension is crucial to the pedagogy, for it opens up academic learning to a fourth space: the field of community engagement. It is in this field that transmedia knowledge really thrives, for here expert knowledge meets common knowledge, the liberal arts meet everyday life, and the legacies of literacy and orality merge into digitality.

By combining critical thinking and media design, StudioLab can be understood as a *critical design pedagogy* for democratizing digitality, for inventing and disseminating new forms of post-Platonic thought, and new spaces for action. The term 'critical design' was introduced by interaction designers Anthony Dunne and Fiona Raby to describe design infused with a politically critical sensitivity, both for designer and end user.[6] Human computer interaction (HCI) designers Jeffrey Bardzell and Shaowen Bardzell write that '[b]y inscribing alternative values in designs, critical design cultivates critical attitudes among consumers and designers alike, creating demand for and supporting the professional emergence of alternative design futures.'[7] Bardzell and Bardzell draw upon the schools of Critical Theory and Metacriticism to open up Dunne and Raby's critical design practice for extension into their field of HCI.

In the spirit of democratizing digitality and design, StudioLab likewise seeks to extend a specific mix of critical design across, potentially, all fields. Like performance and media, design is a transdisciplinary and sometimes contested field marked by disciplinary borders and territorial disputes. But when viewed from the perspective of digitality, debates between specialists, as well as tensions between experts and amateurs, can be recast as effects of ideational specialization and institutional habits associated with literate, disciplinary knowledge production. StudioLab's own metacritical move is to affirm such critical differences by devising creative syntheses across diverse bodies, media, and sites, thereby contributing to the emergence of critical design as a creative force for democratizing digitality.

[6] Anthony Dunne and Fiona Raby, "Critical Design FAQ," retrieved April 1, 2016, http://www.dunneandraby.co.uk/content/bydandr/13/0.

[7] Jeffrey Bardzell and Shaowen Bardzell, "What Is 'Critical' about Critical Design?" *CHI '13 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York: ACM, 2013), 3297–3306.

Critical Thinking + Tactical Media + Design Thinking

StudioLab's approach to critical design pedagogy combines critical thinking (broader than Critical Theory), design thinking (broader than HCI), and tactical media (broader than writing, as described below). This broadening of scope situates Critical Theory, Metacriticism, and other methodological schools within the larger, disciplinary context of critical thinking in higher education. As noted, critical thinking refers to the use of evidence-based, logical reasoning as a guide to ethical decision-making and action and is considered an Essential Learning Outcome, along with others such as integrative learning, and traditional and digital literacy. The tradition of critical thinking stretches from Socrates to Descartes to Kant to Arendt. It forms the foundation of disciplinary research and liberal arts education and is thus taught across the breadth of the traditional arts and sciences.

From the perspective of digitality, critical thinking is literate, ideational thinking whose disciplinary methods all bring objects clearly and distinctly before subjects, a relationship carefully set up in first-year writing courses at the level of sentences, paragraphs, and essay structure. StudioLab's goal is not to replace critical thinking and writing, but indeed assumes their importance and that students have taken such courses: the goal is precisely to supplement and embed literate methods, subjects, and objects within the emerging digital apparatus, using media and collaborative problem-solving to connect them with new communities and situations. The *logos* of critical thinking and specialized knowledge remains operational, but its efficacy has waned due to the global and historical factors outlined above. Arguments and evidence alone no longer suffice, if they ever truly did. Given the increasingly public crisis of the liberal arts in a period of fake news and post-truth politics, revitalizing the forms, functions, and sites of critical thinking is crucial—but thinking and acting beyond the specialized knowledge of Platonic ideation is also necessary to reimagine higher education's place in the contemporary world. StudioLab starts with three simple steps: first, create transmedia knowledge to connect the expert spaces of seminar, studio, and lab; second, build collaborative projects that share transmedia experiences; and third, connect these experiences out into the common field of community to effect change in the world.

To connect seminar learning with studio activities, the second element of StudioLab's critical design pedagogy is *tactical media*, which emerges out of artist activist events and groups in Europe and North America, such as Next Five Minutes (N5M), Critical Art Ensemble (CAE), and Electronic Disturbance Theater (EDT): 'The term "tactical media" refers to a critical usage and theorization of media practices that draw on all forms of old and new, both lucid and sophisticated media, for achieving a variety of specific noncommercial goals and pushing all kinds of potentially subversive political issues.'[8] Tactical media is critical media that extends practices of civil disobedience into digital culture. In *Digital Resistance*, CAE situates tactical media within a comprehensive set of practices that go beyond street-based resistance against disciplinary institutions to function as digital resistance within our contemporary performative matrix. Tactical media-making enables StudioLab to supplement traditional seminar studies of argumentative and rhetorical writing with studio and lab work that produces a full range of media effects: from the Guerrilla Girls' poster infographics to Reverend Billy's performance protests to Electronic Disturbance Theater's FloodNet software to Molleindustria's absurdist games. Significantly, such media making entails collaborative action rather than the solo efforts modeled on the Romantic genius. StudioLab models its critical design teams on art activist cells, garage bands, and startups: different tutor groups will resonate with different curricular needs and different student bodies.

Supplementing critical thinking and tactical media, the third component of StudioLab's critical design pedagogy is *design thinking*; a human-centered design approach to collaborative problem solving developed by the design firm IDEO and researched and taught by the Hasso Plattner Institutes of Design at Potsdam University, Germany, and Stanford University, USA. Design thinking is an interdisciplinary method for addressing complex organizational and social problems. IDEO's CEO Tim Brown argues that designers must 'think big,' think beyond designing endless objects for meaningless needs and instead tackle complex problems facing individuals and societies, such as healthcare and climate change.[9] Design

[8] N5M, cited in Critical Art Ensemble, *Digital Resistance: Explorations in Tactical Media* (New York: Autonomedia, 2001), 5.

[9] Tim Brown, "Designers – Think Big!" (*TED: Ideas Worth Spreading*. Video. September 2009), https://www.ideo.com/news/tim-brown-urges-designers-to-think-big-at-tedglobal.

thinking's interdisciplinary design method balances three constraints—human desirability, economic viability, and technical feasibility—constraints which correspond to the performative values of cultural efficacy, organizational efficiency, and technical effectiveness. Moreover, design thinking's human-centered approach prioritizes human desirability/cultural efficacy, focusing on empathy with various stakeholders to define and reframe the situation at hand. Although design thinking also stresses ideation, or the creative generation of ideas as central to its iterative process, this ideation is post-Platonic, in that relies not on top-down, expert knowledge or *episteme*, but rather on empathizing with a variety of stakeholders, that is, on bottom-up, common knowledge or *doxa*. In that sense, it is already critical, though this criticality resides in a matrix of empathy gathered through ethnographic methods of interview, observation, and participation, and composed of emotions, knowledge, and values. It is within this matrix that micro-transvaluations can occur at both individual and group levels, revalorizations that produce, not exclusions of effectiveness and efficiency, but remixes of them in different, more efficacious spaces.

The elements of StudioLab's critical design pedagogy supplement one another. StudioLab combines the epistemological force of critical thinking's *logos* with the collaborative empathy-driven *doxa* of design thinking and the radical, subversive potential of tactical media-making as *graphe*—not just writing, but drawing, graphics, scenography, animation, data visualization; indeed, any mode of material inscription. At the level of production, traditional critical thinking pedagogies produce individual thinkers and writers, whereas design thinking and tactical media entail the production of *critical design teams.* These teams comprise StudioLab's collaborative dimension. Both design thinking and tactical media-making rely on practice-based collaboration, and design thinking produces its own version of tactical media: the shared media of sketches, diagrams, and prototypes which emerge as part of its design process. Like tactical media, shared media does not report on things but makes things happen: they are themselves performative, not constative, though their actions become reports through iteration. Of course, critical thinking too has its own tactical and shared media: the alphabet, books, and the archive—which most students spend their entire school life learning to the exclusion of other media. StudioLab is a crash course in transmedia critical design.

From Builders to Cosmographers: Critical Design and Critical Performativity

As makers of media and builders of platforms, students can enter the battle over the liberal arts at the level of knowledge-power. The skills they develop by working in critical design teams combine cultural, technological, and organizational performances as well as the values of efficacy, effectiveness, and efficiency. To address the constraints imposed on building alternative platforms, and to affirm the efforts of builders wrestling with these constraints, StudioLab draws on the field of Critical Management Studies (CMS), where researchers have introduced Critical Theory and post-structuralist thought into the discipline of organizational management. Like critical design, critical management studies explore more subversive forms of critical thinking and does so in institutions ruled by socially dominant values and practices; values and practices which its scholars have explicitly theorized in terms of performativity. Again, performativity legitimates knowledge and power by calculating input/output ratios. Whether one feels like a number or embraces excellence, performativity is already at work.

StudioLab offers students different ways to approach performative knowledge and power, and critical management studies offer important lessons. CMS is characterized by 'its critical stance towards institutionalized social and intellectual practices, such as the profit imperative, racial inequality or environmental irresponsibility.'[10] To take on performativity, CMS scholars Wickert and Schaefer invent the concept of *critical performativity*, which offers a nuanced approach as it addresses both the efficiency-effectiveness and efficacy-circuits of power and knowledge. Spicer, Alvesson, and Kärreman further refine the critical performativity concept by contrasting Lyotard's performativity (input/output ratios) and resistant practices of performative speech described by cultural theorist Judith Butler: performativity as subversive resignifications or reuses of discourse—much like DJs remobilize bits of music to produce different effects.

[10] Christopher Wickert and Stephan M. Schaefer, "Towards a Progressive Understanding of Performativity in Critical Management Studies," *Human Relations* (2014), 2. DOI: 10.1177/0018726713519279.

Spicer, Alvesson, and Kärreman approach 'performativity as possibly subversive mobilizations and citations of previous performances, instead of as an overarching concern for efficiency,' and argue for understanding and developing critical management studies as a potentially subversive field of performative research.[11] Here critical performativity operates through 'an affirmative stance, an ethic of care, a pragmatic orientation, engagement with potentialities, and striving for a normative orientation,'[12] one that would challenge the reduction of knowledge and power to inputs and outputs. Rather than positioning organizations as objects of critique and researchers as outside performativity, their 'performative CMS' envisions workers as actively involved in liberating performative practices that produce resignifications, heterotopias, and micro-emancipations, practices which CMS researchers should actively engage with through participatory methods. The goal of this critical performativity is 'to not only engage in systematic dismantling of existing managerial approaches, but also try to construct new and hopefully more liberating ways of organizing.'[13]

Critical performativity and performative CMS provide StudioLab with important approaches for combining cultural, organizational, and technological performances within the context of engaging performative knowledge and power. Resignification entails the reuse or refunctioning not only of discourses but also practices and infrastructures and their simultaneous reinscription within newly imagined heterotopias: spaces with alternative conceptual, physical, architectural, digital, environmental, spiritual, and even cosmic dimensions. Indeed, StudioLab functions as a heterotopia for generating heterotopias—a space of difference for creating other spaces of difference across a range of scales. Within this context, micro-emancipations entail not just resignification but more systemic transvaluations of performative values, challenging the dominant circuits of efficiency-effectiveness with those of efficacy. At the same time, making this valorization of efficacy sustainable and scalable depends upon alternative revalorizations of efficiency and effectiveness.

The methods of design thinking and tactical media supplement traditional methods of critical thinking by introducing interventionist media-

[11] André Spicer, Mats Alvesson and Dan Kärreman, "Critical performativity: The unfinished business of critical management studies," *Human Relations* 62 (2009): 544.

[12] Ibid., 546.

[13] Ibid., 555.

making and human-centered design. *Beyond isolated critiques of the bad, collaborative creations of joy.* As we will see, these joyful creations can be as simple as transmediating a paper into comics. It may seem counterintuitive to initiate joyful collaborations at the intersection of technological and organizational performance, but as CAE argues, the development of tactical media best occurs within tightly knit groups, teams which depend on a shared generation of ideas and projects, coordinated critical thinking, the organization of diverse talents—and effective project management.

To gather the goals of StudioLab: alongside its missions to democratize digitality and democratize design, StudioLab's third mission is *to remix performative values, to resist global performativity—the legitimation of knowledge and power by input/output matrices—by interjecting values of cultural efficacy into institutions dominated by circuits of organizational efficiency and technical effectiveness.* The call here is to *become cosmographer*: to generate micro- and macro-transvaluations of values that move across visceral, affective, and cognitive realms in order to effect changes within larger systems, and thus, imagine and design new worlds. This is what it means to become cosmographer.

Projects, Exercises, and Design Frames

StudioLab's critical design pedagogy synthesizes traditional critical thinking, interventionist tactical media, and interdisciplinary design thinking by enabling students to combine seminar, studio, and lab activities. *Bodies learn differently in each space.* Students combine cultural, organizational, and technological performances and thereby gain hands-on experience in revalorizing efficacy, efficiency, and effectiveness. At the heart of StudioLab are projects, exercises, and design frames that integrate conceptual, aesthetic, technical, and social learning through individual exercises and larger collaborative projects. In an initial Make a Toy exercise, for instance, students use common household materials to design and create toys—tiny desiring-machines crafted to generate joy in others—while learning principles of experience design, the shaping of interactions, emotions, and thought. Concepts are spatialized, taken back to the drawing board and connected with others, and then explored through hands-on engagement. StudioLab's project-based pedagogy unfolds by juxtaposing studio exercises with seminar discussion, lab training, and time for fieldwork, presentation, and reflection. In another

exercise, Design a Museum, students self-organize and scale up their desiring-machines into critical design teams, thereby role-playing as an intimate bureaucracy. By researching art activist groups and miming their different mixes of social activism and tactical media, critical design teams develop names, logos, and mission statements, while drawing on local public commons and transferring their research to issues and situations that resonate with their own lives. Like all StudioLab projects, Design a Museum is modular and portable: it can embrace potentially any topic, field, or community.

As detailed in later chapters, StudioLab's pedagogy moves people transversally in three ways and provides critical design frames at each step. First on a spatial level, within a course, workshop, or even a single, three-hour class meeting, we might begin with a hands-on studio installation, then shift to a seminar discussion, a lab for software training, and conclude with an open workshop or field work. To help articulate these spatial moves with shifts in learning activities, we introduce the CAT design frame (Conceptual-Aesthetic-Technical). CAT maps onto seminar, studio, and lab activities that can unfold in the same space by simply moving tables and chairs. Around a single seminar table, conceptual work follows traditional critical thinking methods—reading, discussion, and written synthesis of textual and other materials—that are supplemented with dramaturgical and media approaches: students generate notes, conceptual spreadsheets visualizing different methods, and intellectual dialogues dramatizing ideational arguments. Shifting furniture into clusters of work tables, aesthetic studio work focuses on transmediating discursive and material practices, mixing arguments with physical, visual, aural, and environmental media, while drawing on fields of performance, graphic design, cinematography, installation, and experience design. Tactical media here include objects, storyboards, mood boards, user scenarios, posters, installations, and prototypes. CAT's technical dimension unfolds in lab formation, with tables now in rows with students learning and using digital software and hardware to support the conceptual and aesthetic activities. Movement between spatial arrangements and their activities are guided by the design process. Generally, projects begin with seminar, then move into lab, and then conceptual and technical work merge in the studio's aesthetic activities. It is important to note that seminar, studio, and lab activities each have their own blends of conceptual, aesthetic, and technical activities, and these come to the fore in different ways. Over time, StudioLab's iterative process blends these dimensions precisely by incorporating their elements

into the unfolding project. Students use CAT to analyze, evaluate, and create transmedia knowledge, for it enables them to abstract and evaluate conceptual, aesthetic, and technical issues at any time in the design process. In all cases, at this first level, student minds and bodies are shaped by transversal movement through distinct learning environments: seminar, studio, and lab.

At a second and more intimate level, students build patterns of social and technical interactions: between students and machines, teams and networks, audiences and interfaces. At this level, movement is experiential—*transmedia knowledge moves us.* StudioLab's second design frame, UX or user experience, draws on fields of rhetoric, design, performance, and psychology to explore ways of transforming people internally by moving them spiritually, conceptually, imaginatively, emotionally, sensually, and/or viscerally. Such experiences unfold in schools, museums, churches, community centers, theme parks, everyday life, online or off. StudioLab's UX frame focuses on *experience design* or the crafting of experiential interactions, *information architecture* or the spatiotemporal structure of these experiences, and *information design* or the look-and-feel at any moment of their unfolding. Using the UX frame both analytically and synthetically, students work in teams to build collaborative platforms and shared experiences for multiple stakeholders: community collaborators, target audiences, the general public, and themselves. To this end, teams study how early ACT-UP members transformed their personal anger and fear into love and action by using social activism and tactical media, and creating direct actions designed in turn to transform the feelings, thoughts, and actions of their target audiences and the wider general public. Shared experiences build collaborative platforms. In our Transform a Paper into an App, Service, or Social Movement project, teams scale up their intimate bureaucracies toward sustainable, collective assemblages of enunciation where transformations of larger social systems become possible. At this second level, students use the UX frame to engage internal, 'experiential architectures' of different stakeholders. These experiential architectures form the building blocks of the emerging heterotopias and provide the platform for micro-transvaluations of value.[14]

[14] Unlike optimistic utopias and pessimistic dystopias, hetereotopias offer different and sometimes undecidable spaces. See Michel Foucault and Jay Miskowiec, "Of Other Spaces," (*Diacritics* 16: 1, Spring, 1986), 22–27.

At a third, sociotechnical level, StudioLab's critical design pedagogy moves students transversally across different social fields as they connect and engage people across disciplines, institutions, and communities. We draw on a third design frame, design thinking or DT, to tackle intractable 'wicked problems,' by using social activism and tactical media to connect students to community, culture, and history. For instance, in a Museum of Interactive Media project, teams at the University of Wisconsin–Madison researched and proposed activist installations for an underutilized space at the transdisciplinary research center in the Wisconsin Institute for Discovery (WID). The center is built on the former site of Rennebohm's Pharmacy, known for the storytelling of its founder Oscar Rennebohm, who later served as state governor of Wisconsin. Inspired by Reverend Billy's Earthellujah project, the KAMG student design team composed of Miranda Curry, Aaron Hathaway, Keegan Hasbrook, and Grace Vriezen interviewed current and potential WID visitors. They also researched the university's own legacy of environmental research and art activism. Their proposed reCLAIM Cafe offers a post-apocalyptic experience for both reclaiming personal space and measuring one's extension into ecological systems. At the VR Bar, patrons can view impacted environments local and global, download a mobile app to track their waste habits, energy consumption, and water usage. At the same time, Trash Chutes visibly recycle consumer objects all around them (Fig. 1.2).

In StudioLab, ideas function as means rather than ends, entering into an open, iterative process where collaborative problem-solving and creativity unfold via shared media and the posing of counterfactual possibilities within imagined worlds. As teams apply DT's transdisciplinary process of empathy, re/definition, ideation, prototyping, and testing, ideas become collective *thought-action figures*, moving from virtual to actual across different spaces. Most importantly, design thinking explicitly seeks to balance three values: human desirability, technical feasibility, and economic sustainability—corresponding to the performative values of cultural efficacy, technical effectiveness, and organizational efficiency.

Together, the three critical design frames of CAT, UX, and DT, along with associated projects and exercises, provide the concrete means for actualizing StudioLab's mission of democratizing digitality and design, as well as transvaluating performative values. Obviously, a single StudioLab course or workshop offered at isolated institutions cannot alone achieve these missions; it must be part of a larger transformation within the liberal arts.

Fig. 1.2 Proposed reCLAIM Café for Renne's Corner in the Wisconsin Institute for Discovery by the KAMG group, 2016. (Image by Keegan Hasbrook)

On the Use and Abuse of This Book

To revitalize the liberal arts, we must transform Plato's Fight Club at the levels of space and media, habits and curricula, values and institutions. Given the social, political, and economic pressures on higher education, we cannot rely solely on expert disciplinary knowledge and traditional media genres of expository essays, journal articles, and academic books, as

these speak almost exclusively to specialized scholars. Nor can we keep seminar, studio, and lab learning totally separated from each other and from the field of communities, organizations, and the world. We clearly still need scholars, knowledges, genres, and spaces, but to engage with the general public, with policymakers, with organizations, and with a generation of students raised on iPhones and YouTube and schooled in Google Classroom, we must supplement traditional academic genres with digital media genres such as multimedia presentations, video essays, podcasts, and websites, and bring disciplinary expertise into a new relationship with nonspecialists as well as with our own lives. That is, we must transmediate knowledge and power and create new modes of social contestation and new worlds of cultural imagination. The very life forms defeated or sidelined by Plato's Fight Club—Homeric mimesis, indigenous traditions, popular culture—offer models and mediums for remixing *logos* and *mythos*, *eidos* and *imagos*, *episteme* and *doxa*.

StudioLab can be used in potentially any field interested in generating or sharing research with different audiences. We can appreciate this flexibility through the CAT design frame: the conceptual component can be any disciplinary knowledge; the aesthetic style can range from coherent clarity to sublime subtlety to manic mashup; the technical media can spread from books and zines to videos, podcasts, installations and beyond. The specific mix of conceptual, aesthetic, and technical components will be determined by the particular project at hand and may well be co-created with partners outside the academy. StudioLab's critical design pedagogy combines critical thinking, tactical media, and design thinking in order to bring digital media, analysis, and creativity to collaborative problem-solving and trouble-making.

Even though StudioLab may be used in any department or discipline, its transmedia knowledge forms, design frames, and projects may be more appropriate for some classes than others. If an instructor or department decides to explore the pedagogy, they may want to focus strategically on specific types of courses, including:

- *Entry-level or gateway courses*, thus enabling lower-level students to produce transmedia knowledge throughout their college experience.
- *Upper-level capstone courses*, so that seniors can integrate their learning from their major field and broad liberal arts education in sophisticated, expressive ways, and gather them into a portfolio of work that can be used to take the next step in their lives.

- *Graduate-level courses* to prepare researchers to communicate their work to different audiences and to teach and/or problem-solve effectively in academic and nonacademic careers.
- *Professional development workshops for faculty and research staff*, offering them ways to transmediate their own research and incorporate transmedia knowledge into their teaching.
- *Community-based research, service learning courses, or public humanities and science initiatives* where students can actively collaborate with groups using a transdisciplinary set of critical design skills to address specific real-world issues and problems.

As these courses and workshops suggest, StudioLab can also help departments reimagine their curricular and strategic goals as they wrestle with the crisis of the liberal arts in their own institutional situation.

Depending on the historical context, organizational culture, and technical infrastructure, departments and programs can use StudioLab to *align*, *transform*, or in some cases *resist* broader institutional initiatives in such areas as program innovation, interdisciplinary research and teaching, active learning, project-based collaboration, community engagement, professional development, technology-enhanced learning, and program assessment. From working across campuses at different types of institutions, we have found that forces of experimentation and normalization can arise and be experienced differently depending on disciplinary field, methodological training, and individual disposition. What seems revolutionary and transformative to some may seem reactionary and soul-killing to others. Some faculty will 'get' StudioLab's critical design missions of democratizing digitality, democratizing design, and transvaluating performative values, while others will not.

Traditionally, undergraduates are initiated into majors and learn objects and fields, but few learn about disciplines. Graduate students are initiated into disciplines and learn methods of research and sometimes teaching, but few learn much about the wider institution. Young faculty are initiated into institutions and learn about resources and funding, but even then, they can remain siloed with little knowledge about infrastructure and community. StudioLab seeks to collapse these divisions and give everyone an opportunity to think and act critically across disciplines, institutions, and communities. Given their distribution requirements, undergraduates are the most radically interdisciplinary scholars on campus, yet they don't know about disciplines, and have very few opportunities to integrate all

the learning gathered while roaming for years across campus. Graduate students and faculty tend to become more and more specialized; though some undertake interdisciplinary research, relatively few problem-solve far from their discipline by using transdisciplinary and community-engaged research. Such specialization may have made sense in the past but today must be supplemented with more holistic and integrated learning.

This book is organized to help design StudioLab courses or projects at any level with any student and potentially any content found in the liberal arts, as well as professional fields such as healthcare, engineering, and business. StudioLab's versatility derives from several factors. First, because it seeks to democratize digitality and critical design within higher education institutions that privilege writing and critical thinking, StudioLab's target audience are college students with little or no prior media design experience beyond first-year writing, whether they are undergraduate or graduate students. Graduate students struggle with design problems as much as undergraduates and take as much joy in creating solutions. Second, because StudioLab focuses on transmedia knowledge, even students specializing in graphic design, video production, communications, information science, computer science, or engineering can benefit by expanding their repertoire of media genres and design frames and building their portfolios. The presence of these students in StudioLab courses enhances the class experience for all, as they engage in peer-to-peer learning and teaching of particular design skills. Finally, although this book focuses on a specific set of tutor texts and takes inspiration from art-activist groups, potentially any subject matter or small productive team could be substituted. Transmedia knowledge, and StudioLab's three design frames in particular, can embrace any academic subject matter. If you doubt it, simply search the web for a specific field and different media forms (e.g., PechaKucha, comics, posters)—to see that specialized transmedia knowledge in that field already exists. StudioLab enables students to apply its design frames analytically and creatively in order to move from being a consumer to becoming a producer, collaborator, and world-maker of transmedia knowledge.

The curricular uses of StudioLab are many, and its critical design pedagogy can be incorporated into the curricular goals of any field or department. All fields want their students to communicate more effectively, which explains why colleges require first-year writing of all students and why departments often require additional, more specialized writing courses for graduation. StudioLab supplements these monomedia courses to give students

transmedia knowledge-making and collaborative problem-solving skills—skills that complement rather than compete with writing and educational models based on coverage of information. Indeed, almost all the transmedia forms include writing and some other media. In short, they are themselves graphic multimedia: posters, websites, podcasts, theory comics—all of which involve alphabetic writing, which again is itself audiovisual.

But beyond communicating information, critical design and transmedia knowledge generate new ways of thinking and enable one to learn new ways of making arguments and new rhetorical strategies, while also opening up new evidence tracks. A traditional essay makes arguments and presents evidence solely through alphabetic writing. An illustrated essay or theory comic adds a visual track of evidence and introduces the possibility of nonlinear and narrative argumentation. A video essay or PechaKucha presentation can use both audio and visual evidence, and the layering of word, image, and sound, as well as simple or sophisticated transitions for argumentative and rhetorical effects.

In addition to enabling students to think differently and communicate their learning across media, StudioLab can also contribute to academic programs looking to adjust or revise their curriculum as a means to reach out to audiences and stakeholders beyond specialists. At a time when colleges and the liberal arts are publicly debating policymakers, the general public, and themselves about the value of their programs and requirements, administrators need both faculty and students to advocate and tell their stories regarding the value of higher education. Moreover, higher education needs to help society reimagine humans' place in the world. Efficacy, in particular, offers the liberal arts a different perspective on debates about the instrumentalization of knowledge, as it focuses on cultural and social ends, not just technical and economic. In response to attacks on the liberal arts and the humanities in particular, foundations and funding agencies such as NSF, Mellon, and the NEH, as well as alumni donors, have increased support for initiatives in public humanities, public history, public science, and community-and-service-based learning. Academic departments can develop StudioLab courses as part of their efforts for curricular innovation by transmediating their disciplinary knowledge into specific media forms to reach particular audiences. Obviously, revitalizing the liberal arts will not happen through one class, one pedagogy, one curricular innovation, or one institution. Nor will it happen overnight—structural, historical, and existential changes often unfold very slowly—until there is a crisis.

The Adventures of StudioLab

StudioLab Manifesto unfolds over the next three chapters to articulate three levels of transformational practice and engagement with the world, or what the French philosopher Gilles Deleuze calls different series of *becoming* or metamorphosis. These levels of transformation—becoming maker, becoming builder, becoming cosmographer—can be taught as levels of gaming: the adventures of each level building upon what comes before it, while also raising the stakes.

Chapter 2, Becoming Maker, transforms students from media consumers to makers of transmedia knowledge. The first step in democratizing digitality is making media beyond writing. Becoming maker builds on traditional modes of knowledge-making by moving away from practices that rely on field coverage, object analysis, and alphabetic writing only, and adding project-based production of transmedia knowledge for different audiences. Individual projects allow students to transmediate knowledge from their own fields, while collaborative projects allow them to integrate learning from different fields. To facilitate this first transformation, this chapter focuses on the shift from critical thinking to critical design and provides specific tools such as the CAT design frame and tutor texts through which to critique, reimagine, and produce knowledge differently.

Chapter 3, Becoming Builder, transforms individual makers of transmedia knowledge into builders of collaborative platforms and shared experiences. Students create as *critical design teams* based on the model of artist activist groups, garage bands, and start-ups, rather than the model of solitary Romantic genius. Using tactical media production as a central means of critical design, this chapter argues for the importance of creating media collaboratively in conceptual teams, aesthetic bands, and technical guilds whose activities map respectively into seminar, studio, and lab spaces. Building on the CAT design frame, Chap. 2 introduces the UX (user experience) design frame to help teams make shared experiences scalable and sustainable. The UX frame teaches students skills in experience design, information architecture, and information design. It is within critical design teams that experiential architectures emerge, capable of connecting with other collaborative platforms.

Chapter 4, Becoming Cosmographer, transforms collaborative builders into cosmographers or co-designers of worlds through community engagement, such as participatory research, citizen science, and public humanities. StudioLab's third level builds on the skills and frames of Chap. 3, to connect collaborative problem-solving to the wider audiences:

communities, policymakers, and other partners outside the academy. This chapter introduces the third design frame, design thinking or DT, whose iterative process of empathy, definition, ideation, prototyping, and testing, seek to attune human desirability, technical feasibility, and economic sustainability, or in StudioLab's performative terms, to valorize cultural efficacy in relation to technical effectiveness and organizational efficiency. Here we discover transmedia at the heart of all knowledge production.

StudioLab Manifesto issues three calls to adventure, repeated appeals to engage the battle for the liberal arts and reconfigure Plato's Fight Club through a series of missions: to democratize digitality, to democratize critical design, and to remix the performative values of efficacy, efficiency, and effectiveness. It also issues three calls to action: to become maker, to become builder, and to become cosmographer.

Learning StudioLab's design frames through sustained project work can be transformational, empowering one with creative confidence to bring critical design perspectives to other situations, including professional and life decisions. The CAT frame enables one to augment concept decision-making with cultural and technical nuances, and thus, dynamically redesign one's many different bodies of knowledge. The UX frame provides a language and practice to create such experiential transformations at intimate, interpersonal levels as well as larger social ones, while the DT frame provides a transdisciplinary, ready-made process for remixing values of efficiency and effectiveness with those of efficacy within communities and organizations.

Wrestling with Plato's Fight Club, StudioLab's critical design pedagogy produces not only conceptual arguments, aesthetic experiences, and technical processes found siloed across most campuses, it also mixes these activities to create cognitive-affective-material constellations of thought-action generated and shared through proposals, presentations, diagrams, prototypes, objects, apps, and other tactical media. At stake here is combining critical analysis and creative making at scale, and not just media making, but the building of transformative experiential architectures whose performance design extends from the internal dynamics of teams to those of collaborating groups and communities.

Emerging within seminar, studio, lab, and field spaces, from past, present, and future time zones, such experiential architectures give concrete form to the heterotopias envisioned by Foucault, as well as the columned academies of Plato. Such architectures provide intimate yet common platforms for the transvaluation of performative values and the actualization of possible worlds. Thus the adventure: *make media, build platforms, design worlds.*

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