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Introduction

MAKING (DO) WITH EMERGING TECHNOLOGIES OF DIGITAL WRITING

Google released the beta version of its augmented reality headset "Glass" in 2013, the same year that I entered the PhD in English program at the University of Florida to study writing and digital rhetoric. Although Glass looked like regular eyewear, its augmented reality optical display provided a computational interface to the physical world, thus allowing users to perform digital activities "on the go" like video chatting with friends, sending and receiving text messages, and looking up directions on Google Maps. Although I couldn't afford to enroll in the Glass Explorers beta-tester program at the time, I recall eagerly awaiting the initial product reviews from online journalists and tech bloggers who managed to get their hands on one of the world's first mass-marketed augmented reality devices.

As the reviews rolled in, however, it quickly became clear that the device was not living up to the hype. Although Glass certainly brought awareness to the potential of augmented reality, its release also served to highlight many of the key technical, social, and ethical issues surrounding this emerging technology, from privacy concerns related to Glass's ability to create surreptitious video recordings to the awkward functioning of the optical interface itself. In one of the more damning postmortems, Massachusetts Institute of Technology's (MIT) technology review editor Rachel Metz (2014) noted that Glass essentially does everything we expect from a mobile device (web browsing, texting, map navigation, etc.); it just "doesn't do any of them all that well." Although Glass's see-through optical display *potentially* allowed for the creative juxtaposition of digital media and physical space, most device applications did not engage with this functionality in any meaningful way for the user. Thus, for many beta-testers, Glass's claim to "augment reality" seemed like little more than a gimmick, a cheap prototype of a better technology to come.

Gimmicks. Emerging technologies are often susceptible to this derogatory label. A gimmick is a publicity stunt, an attention-seeking fad that masks its own uselessness through sheer novelty. Although the exact origins of the word are unknown, its etymology is often traced to the word "gimac," an anagram of "magic" referring to the tricks and mechanical devices used by magicians in the early twentieth century (Emre 2020). As such, gimmicks have long been associated with technologies and practices for duping audiences into accepting subpar (if not completely fraudulent) products and experiences. A 1985 editorial in the *New York Times*, for instance, criticized the impracticality of the then-nascent laptop computer, noting that it was nothing more than "a dream machine for the few" likely to only sell in "specialized niche markets" (Sandberg-Diment 1985). Granted, outdated technological speculations are low-hanging fruit. New digital technologies are often perceived as premature, and, in many cases, such technologies go on to achieve widespread adoption despite their initial reception. However, this knee-jerk reaction betrays a more pervasive cultural assumption that new technologies should seamlessly plug in to existing sociotechnical norms. Paul Dourish and Genevieve Bell lament this cultural tendency to conceptualize emerging technologies as existing solely in a "proximal future." They claim that when we imagine new technologies as being "just around the corner" we "render contemporary practice . . . irrelevant or at the least already outmoded" (Dourish and Bell 2011, 22). Consequently, this "proximate future" outlook inadvertently obfuscates, and perhaps even discourages, creative engagement with the capacity of emerging technologies to transform how we think, move, act, and compose within the world *today*.

Composing Place begins from the premise that mobile, wearable, and spatial computing technologies are more than just the latest marketing gimmick from a perpetually "proximate" future but rather an emerging composing platform through which digital writers create and distribute place-based multimodal texts. However, as seen in the case of Google Glass, such technologies are still in a stage of cultural emergence, and the rhetorical affordances they might offer digital writers as a medium for place-based composing are still relatively unknown. As John Tinnell (2017) writes, mobile and augmented computing technologies "do not come preinstalled with literary, artistic, or rhetorical innovations" (11). As such, *Composing Place* forwards an approach to writing through the locative affordances of emerging mobile and augmented reality technologies. This approach, which I delineate in part II, offers a set of rhetorical design practices through which digital writers can not only better leverage the

affordances of place-based digital media but also curate more capacious and inclusive pathways for navigating a location's rhetorical terrain.

This project emerges from my own scholarly and pedagogical practices with mobile augmented reality. Over the last several years, I have been designing and creating place-based mobile media experiences within a variety of scholarly, pedagogical, and public humanities contexts. Through this, I have developed a greater awareness of the importance of "making" as a methodological practice within digital rhetoric research. Interdisciplinary movements toward making are prominent across humanities fields. David Rieder and Jessica Elam-Handloff note that the maker movement promotes an ethos of "techno-eclecticism" in which technologies are not seen as tools for accomplished predetermined tasks but as sites of "experimentation, tinkering, and play" (Rieder and Elam-Handloff 2016). They write that maker approaches to humanistic inquiry offer "new forms of creativity and critical expression" through which we might explore a variety of technologically mediated practices (Rieder and Elam-Handloff 2016). Indeed, methodological movements toward "critical making" and "hands-on research" methods are beginning to pick up steam as digital humanities and media studies scholars continue to grapple with ever-evolving technological contexts of their work (Ratto 2011; Hertz n.d.; Sayers 2015).

Scholars in writing and rhetoric have also begun to partner with this wider "maker" movement as a way of exploring the underlying rhetorical capacities of new technologies. David Sheridan (2016) has offered insights into how maker methods like prototyping and fabrication might inform the field's engagement with more material, "three-dimensional" rhetorical practices. As Sheridan points out, this emerging area of scholarly inquiry offers a chance for our field to take up "a maker mentality toward writing," a mentality capacious enough to acknowledge that rhetorical invention is not just a cognitive activity but a "social and material" practice intertwined with networks of "tools, raw materials, spaces, media, and people." Other rhetoric scholars have extended this maker mentality into pedagogical spaces, considering how maker technologies like modular circuitry can disrupt "conventional practices of invention" and "provide opportunities to explore rhetorical practice as play, failure, and risk-taking" (Faris et al. 2018). Ultimately, this movement is indicative of the growing exigence for developing new methods, spaces, pedagogies, and practices through which we can better discern the cultural and rhetorical implications of emerging digital composing technologies.

My approach to emerging technologies of writing takes up a maker mentality by not just engaging with the rhetorics of mobile media

from a critical distance but actively teaching, designing, and creating place-based mobile media experiences. Specifically, my research practices with mobile media take up an "app-maker" approach akin to that described by Brett Oppegaard and Michael Rabby in "The App-Maker Model: An Embodied Expansion of Mobile Cyberinfrastructure" (Oppegaard and Rabby 2016). An app-maker approach is a form of "action research," which Oppegaard and Rabby (2016) describe as research practices that work to "get inside the system, and study it from that viewpoint" (para. 25). Specifically, an app-maker approach conceptualizes the process of designing, creating, and testing mobile applications as a vital research site for exploring the rhetorical capacities and limitations of mobile media. As they write, participating in the process of app creation can "lead to richer understandings of the technical backend of the media ecosystem as well as heightened awareness of practical communication issues related to real-world performance and audiences" (Oppegaard and Rabby 2016, para. 1). In short, our scholarly and pedagogical explorations with mobile media can benefit from more direct, hands-on engagement with the processes of mobile app design and development.

Issues of technological access are a perennial issue when it comes to new and emerging composing technologies. Students, teachers, and researchers may not have the time or resources to create mobile media projects, not to mention the high levels of programming knowledge required to design, create, and distribute a standalone mobile app. Indeed, mobile devices and advanced AR headsets are not only cost prohibitive for many scholars and teachers but increasingly operate through complicated, black-boxed operating systems and application distribution ecosystems. Moreover, departments and institutions may be wary of providing funding for technologies that are often marketed for purposes of entertainment and/or personal productivity. As I discuss in more detail in part III, such issues are a frequent barrier for those looking to work with mobile technologies in their teaching and research practices. However, as scholars in the fields of multimodal composition and digital rhetoric have long known, creating compelling rhetorical experiences with and through the affordances of new media does not necessarily require the latest gadget or a computer science degree. As I note in chapter 5, productive engagement with the rhetorical affordances of mobile media can take place through "lo-fi" technologies and pedagogical experiences (Stolley 2008), from open-source locative composing platforms to place-based rhetorical inquiries like "bodystorming" that do not even require a computer (Oppegaard and Still 2013). Such

approaches are important avenues for further scholarly engagement in our field as we continue to advocate for more accessible and inventive processes for composing with mobile media.

As I have seen in my own efforts developing mobile writing experiences, exploring mobile media's potential as a place-based writing technology requires engaging with the spatial characteristics of specific locations and the various rhetorics and ideologies that circulate through them. While designing a mobile counter-tour of a popular yet contested tourist site, I explored how mobile AR can rewrite dominant narratives within public and private spaces; while collaborating on a mobile history tour of an iconic urban space, I observed how locative media can spur associative connections among the complex cultural and rhetorical layers of a historic location; and while designing a mobile AR advocacy campaign, I reflected on the civic potential of spatial computing as a medium for amplifying marginalized perspectives within mundane spaces. Through these projects, I hoped to not only produce compelling place-based digital projects that work to (re)write how publics perceive (and interact) with specific locations rhetorically, but in the process, discover the compositional constraints and affordances of emerging mobile and augmented reality technologies as technologies of place-based digital writing.

Much like the creative experimentation with hypertext, multimodality, and web design that has taken place in journals like *Kairos* and *Enculturation* over the last few decades, I argue that the field of writing and rhetoric should pursue scholarly and pedagogical initiatives that will allow us to explore (and exploit) the rhetorical constraints and affordances of this emerging era of mobile and augmented computing. Jonathan Alexander and Jacqueline Rhodes advocate for a similar kind of experimental ethos within digital and multimodal research in their introduction to *On Multimodality: New Media in Composition Studies* when they describe the multimedia installation they presented at the 2009 Computers and Writing conference as a way to "*experiment* with multimedia forms of composing" (Alexander and Rhodes 2014, 8, emphasis added). Rhetorical experimentation with digital and multimodal composing tools, they claim, allows us to better grasp the "distinct modes, logics, methods, processes, and capabilities" of various media (Alexander and Rhodes 2014, 4). Indeed, the field of computers and writing has long acknowledged that the rhetorical affordances of emerging writing technologies manifest through critical and inventive engagement. Through this, we regularly participate in Douglas Eyman's notion of digital rhetoric as not just a framework for analyzing digital technologies but as a way of "making use of semiotic resources in the

process of invention—not just *using*, but actually *making* digital texts" (Walker et al. 2011, 329, emphasis in original).

As a rhetorical practice of invention, play, and experimentation, making is less concerned with the production of polished final products and more with the processes, contexts, and spaces in (and through) which making takes place. Extending Dourish and Bell's (2011) insights about our tendency to conceptualize mobile computing practices as existing solely in a proximate future, Brett Oppegaard and Brian Still note that mobile technologies are always "in a state of bringing forth, as iterative improvements continually appear throughout an interconnected system, causing every other point to readjust, and inherently keeping the system in a state of flux" (Oppegaard and Still 2013, 357). As complex rhetorical assemblages, emerging technologies are often in ad hoc, articulated relationships to the constantly evolving sociocultural frameworks, discursive contexts, and institutional structures in which they are embedded. As such, making with emerging technologies is always a process of "making do" with the technological and rhetorical frameworks in which writers find themselves in specific times and places. This is not to say that our field should chase every passing digital fad, but simply that we should attend to the rhetorical potential of new technologies *as they emerge*. In doing so, we might better understand (and discover) what they afford us as technologies of writing.

RHETORICS OF MOBILE WRITING

The technology analytics company comScore recently reported that over 50 percent of all online interactions in the United States occur within mobile applications, a trend that continues to increase on a yearly basis. Consequently, the technology industry has become keenly aware that creating compelling digital experiences in an era of mobile computing requires more than simply making sure that their website is scalable to the latest mobile device. Rather, it requires an entirely new framework of digital design oriented toward creating more contextualized and immersive interactions with the user's immediate surroundings. Indeed, some of the most popular mobile apps available today leverage the affordances of mobile and wearable computing, from ride-sharing services and mapping applications to location-based mobile games à la Pokémon Go. In short, the future of mobile computing continues to extend far beyond the rectangular limits of the latest smartphone.

A number of scholars in writing and rhetoric have explored the generative potential of mobile media to reshape our rhetorical interactions

across digital and material spaces. In *Digital Detroit: Rhetoric and Space in the Age of the Network,* Jeff Rice (2012) engages with the choric, networked affordances of digital mapping technologies in his exploration of more personalized, database-driven routes through the city of Detroit. More recently, John Tinnell's *Actionable Media: Digital Communication Beyond the Desktop* (2017) interrogates the rhetorical implications of nascent mobile and ubiquitous computing technologies, focusing in particular on how they allow digital writers to engage with their audience's rhetorical "here and now" (13). From a pedagogical standpoint, scholars such as Brenta Blevins (2018) and Nathaniel Rivers (2016) have elaborated on the potential of location-based composing technologies for engaging students in critical explorations of the visual, aural, historical, and discursive layers of a location. Jordan Frith and Jason Kalin (2016) have explored how mobile and wearable media might enact more embodied and affective ways of experiencing a given space, particularly as a site of affective cultural memory. And throughout much of his work, Jason Farman (2012, 2014) has worked to explicate how mobile technologies affect experiences of embodiment and offer new platforms for location-based storytelling. Collectively, this scholarship works to articulate how the growth of location-specific digital media within our everyday lives entails not just a technological shift in how we interact with computers but a *rhetorical* shift in the way digital texts circulate across physical spaces as a suasive force linking up complex assemblages of humans, nonhumans, discourses, media, and environments.

Digital artists and media activists have also begun to explore the broader cultural implications of the mobile computing revolution, focusing in particular on the affordances of such technologies to creatively transgress the sociopolitical borders of public and private spaces. Through critical engagement with AR and other mobile computing technologies, these digital creatives demonstrate the extent to which locations are not simply inert containers for delivering digital texts but are also generative sites of rhetorical invention. Activists working in the Manifest.AR collective, for instance, have demonstrated applications of mobile AR to memorialize migrant deaths at the United States–Mexico border (Freeman 2016), expose the carbon footprints of cloud computing technologies (Thiel 2012), and even digitally hack the physical logos of multinational corporations (Skwarek 2014, 9). Such projects demonstrate how the particular affordances of any given writing technology do not arise ex nihilo from the technology itself; rather, they emerge through rhetorical experimentation within and through specific locations and contexts. As such, these digital artists participate in Rob

Kitchin and Martin Dodge's notion of space as an ontogenetic "process of becoming . . . forever (re)created in the moment" (2011, 68). Mobile technologies offer an emerging means through which digital writers can engage with (and intervene into) the ontogenetic capacities of their audience's material surroundings.

As digital media scholars, artists, and activists continue to demonstrate, the networked affordances of mobile media and emerging wearable/spatial/ubiquitous computing devices are beginning to spur entirely new genres of place-based digital writing that have the potential to reshape how we move through (and interact with) physical spaces. However, as Alexis Madrigal (2012) points out, rhetorically compelling mobile computing experiences are not only contingent upon faster processors and sleeker screens but writers and digital content creators capable of designing compelling multimedia experiences that creatively leverage the affordances of this emerging computing paradigm. Although emerging mobile media hold great rhetorical potential, there is still much to explore in terms of their specific constraints and affordances as a medium for place-based composing.

Drawing from work in rhetoric, spatial theory, mobile media studies, and digital art, as well as my own efforts of "making do" with nascent mobile writing technologies, *Composing Place* delineates three general sites through which digital writers and creatives are employing mobile media to

- refract dominant rhetorics in contested spaces,
- layer historical experiences in iconic spaces, and
- illuminate marginalized injustices in mundane spaces.

These three sites are not intended as strict taxonomy but rather as a generative framework through which the field of writing and rhetoric might explore more expansive and creative applications of mobile media in various research practices, pedagogical contexts, and public-facing initiatives. Moreover, conceptualizing mobile writing technologies through these spatiorhetorical contexts encourages us to view this emerging computing paradigm, and its attendant rhetorics and literacies, not simply as a technology but more broadly as a modality of place-based digital composing.

My description of this emerging suite of spatial computing technologies as a modality engages with three distinct, yet intertwined, definitions of the term: (1) *a medium* through which writers can leverage material spaces and objects as a rhetorical element of their digital compositions, (2) *a practice* for unraveling the "conditions of production" that underlie

a given spatial formation (Latour 2003), and (3) *an aesthetic frame* for designing rhetorically compelling place-based digital experiences. By working from this more capacious definition, I claim, we can better interrogate the unique affordances of mobile media as a form of place-based digital writing rather than viewing it as a mere delivery platform for existing digital rhetorical practices.

Modality as Medium

For many readers, the term "modality" is likely familiar within the context of multimodal composition, a now well-established subfield of writing and rhetoric scholarship that recognizes the broad range of materials, technologies, and communicative practices available to writers. The New London Group (1996) first outlined categories of meaning-making according to linguistic, visual, audio, gestural, and spatial modes. Importantly, the NLG noted that these modes do not exist in isolation but rather work together in "dynamic relationships" to produce rhetorical effects in diverse contexts and situations (80). Thus, the concept of multimodality is a way of acknowledging the fundamentally multivalent and mediated aspects of all meaning-making practices.

   In their discussion of space as modality of communication, the NLG draws attention to how the suasive effects of physical locations are often hidden in plain sight. A multimodal reading of a location requires attending to not only linguistic elements of the space but also the more distributed, peripheral, and material rhetorics embedded throughout it. For instance, the NLG notes that the material rhetorics of consumer spaces are designed to prompt nonconscious actions and perceptions that align with the overarching ideology of the location as a space for extracting capital: "McDonalds has hard seats—to keep you moving. Casinos do not have windows or clocks—to remove tangible indicators of time passing. These are profoundly important spatial and architectonic meanings" (81). Such suasive efforts are not unique to spaces of consumption; all spaces work to persuade us (whether explicitly or implicitly) to view and/or perceive that space through a particular rhetorical, ideological, and/or political framework. As other rhetorical theorists have since elaborated, material spaces and objects are akin to a kind of background-persuasion, operating as an ambient rhetorical force upon inhabitants' perceptions of, and movements through, a space (Rickert 2013).

   The emergence of place-based composing technologies offers digital writers a new means for engaging with the spatial as a rhetorical feature

of digital compositions, an emerging curatorial space for navigating the rich semiotic layers of one's immediate surroundings. These technologies necessitate thinking about multimodality not simply in terms of individual, isolated media forms (image, text, place, video, hyperlink, etc.) but rather how these media interact within and through specific locations. As Glynda A. Hull and Mark Evan Nelson write, creating meaning through multimodal composition practices is "not simply an additive art whereby images, words, and music, by virtue of being juxtaposed, increase the meaning-making potential of a text" (2013, 457). Rather, multimodal texts activate their semiotic power by "transcending what is possible via each mode," thus establishing an entirely "different system of signification" irreducible to the "affordances" of any particular medium (2013, 478). Similarly, Brenta Blevins (2018) elaborates on the "transcendent" affordances of mobile media composing, noting that teaching with augmented reality technologies, for instance, expands students' conceptions of how emergent semiotic "layers" (e.g., physical objects, user movements, alphanumeric text, digital media, etc.) work together to create meaning in mobile experiences. Thus, writers composing through mobile media must attend to how the various media deployed within the experience—whether image, video, or 3D animations—are inflected by the rhetorical and spatial contexts of their digital compositions.

One of the key affordances of mobile and spatial computing is its capacity to not only creatively link supplementary digital media with the user's physical surroundings but also to provide alternative routes to the entrenched rhetorical pathways through which we might typically navigate a space. As John Tinnell (2017) points out, it is precisely this peripheral, supplemental feature of mobile media that makes it so dynamic as an emerging communication platform. Post-desktop computing practices work to "deliver information or commentary about the scene that is not apparent otherwise, to stimulate close readings of subtleties in our surroundings that we tend to neglect, or to enable forms of *in situ* content creation that thrive on documenting things on the spot" (50). As such, mobile and locative media is not simply a technology for adding digital texts to the physical world, but, as Adriana de Souza e Silva (2013) puts it, a medium with the capacity to "strengthen people's connections to their surrounding space, rather than removing them from it" (117).

Ultimately, mobile composing technologies offer an emerging computational site through which writers can leverage space as a suasive element within their digital compositions. However, we also need to attend to how emerging place-based composing practices allow writers to not

merely partner with a location as a coauthor but also offer a means for critically interrogating how locations might be concealing complex historical, cultural, and political layers of meaning that nonetheless affect how we talk about, perceive, and move through different spaces as sites of rhetorical activity. To further elaborate on this aspect of modality, I turn to Bruno Latour's work in science studies and his concept of negative modalities.

Modality as Practice

In *Science in Action*, Latour (2003) uses the term "modalities" to describe how facts are deployed within scientific discourse. He describes how statements in scientific contexts operate as either "positive modalities," which build upon scientific knowledge by extending and/or applying it to new areas, or "negative modalities," which work to interrogate the "conditions of production" through which scientific knowledge gains its transferable facticity (23). Positive modalities maintain the continued circulation of scientific discourse as "facts" that are "solid enough to render some other consequences necessary" (23). For example, consider the following statement: "Nuclear reactors are a more reliable energy source than renewables." This sentence creates a positive modality, or a "solid enough" fact, that can then be used to "render some other consequences necessary," such as the defunding of renewable energy initiatives. Latour notes that positive modalities are vital to the advancement and public circulation of scientific knowledge; however, in the process, positive modalities can black box the "conditions of production" (e.g., tests, experiments, debates, variables, etc.) that brought this knowledge into being as a rhetorical object. Conversely, negative modalities turn our attention to the processes through which knowledge is constructed, critically interrogating the contingent and particular conditions of science. Or as Latour states, negative modalities convert "facts" into "artefacts," thereby revealing the cultural, political, and rhetorical conditions of scientific inquiry as a process of active creation, not just objective discovery (25).

Building from Latour's notion of negative modalities, I want to consider how mobile technologies can be employed as a spatial practice for unraveling the "conditions" through which complex material spaces come to assume stabilized spatial identities. Similar to the way that negative modalities convert "facts" into "artefacts," mobile composing technologies can be repurposed to convert "solid enough" spatial identities into sites of rhetorical inquiry. Consider, for instance, a location that

might typically be perceived as mundane: a busy urban intersection, a space designed to coordinate the safe and efficient movement of cars, cyclists, and pedestrians. For the most part, intersections operate as positive modalities, a "solid enough" spatial fact of everyday life. However, if we go in the opposite direction, we begin to unravel the complex "conditions of production" required to solidify the intersection's identity as a space that privileges vehicular travel: pedestrian-shaming city planning ordinances, car-centric traffic laws, decades of lobbying by the car industry, and so forth. Moreover, further unraveling of this location would entail not just looking at the specific city planning and urban design documents that went into this specific location, but also the broader cultural and historical contexts that allowed the idea of an "intersection" to take root as a "solid enough" ideological frame for organizing social relations within urban spaces. As I discuss in more detail in chapter 5, mobile media offer an emerging composing space through which digital writers can reframe a public's rhetorical interactions with(in) everyday, mundane spaces from "solid enough" facts of life into sites of inquiry, deliberation, and social advocacy. Indeed, as I hope to demonstrate in the chapters throughout *Composing Place*, mobile media are poised to transform how writers engage with space as an articulated network susceptible to new forms of place-based digital composing and rhetorical (re)composition.

Modality as Aesthetic Frame

My final definition of modality comes from the field of musical theory. Before musical compositions were organized according to scales, musicians used what were referred to as "modes" as a compositional and aesthetic frame for establishing harmonic relationships within a given musical performance. The seven modes (Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian) were first developed in ancient Greece, each one aligning with the compositional practices of specific subregions and people groups across Greece and Asia Minor. The ancient Greeks believed that the tonal relationships established through each mode corresponded to particular "expression[s] of emotion" that, when performed for public audiences, could directly induce the desired emotional disposition (Schoen-Nazzaro 1978, 263). In *The Republic*, for instance, Plato (1999) describes how each mode contains a unique affective power, noting that modes like Dorian and Phrygian inspire courage and strength, while modes such as Lydian and Ionian induce sadness and drunken revelry (197–98). Thus, in ancient Greek

contexts, modes were a kind of aesthetic rhetorical force that produced various affective states within the populous. Unlike scales, which offer a more mathematically accurate system for musical composing, modes are more of a generative constraint employed by musicians to root a song in a common set of melodic themes and tonal relationships.

Similar to how modalities offer a generative aesthetic frame for a musical composition, the location of a given mobile media experience operate as an aesthetic frame for place-based digital compositions. John Tinnell (2017) writes that composing with mobile AR, for instance, is akin to establishing new melodic relationships within a location by identifying rhetorically generative "keynotes" (e.g., local discourses, pressing public issues, etc.) within a location and learning "how to compose with/in them" (194). To write through mobile technologies is to write with(in) a location's rhetorical constraints and affordances, a site through which meanings are situated and contextualized but not utterly determined. The digital practices delineated in part II of this book offer a set of generative examples and techniques through which mobile media can be leveraged to explore new rhetorical and aesthetic experiences within contested, iconic, and mundane spaces. In other words, if space is akin to an "ensemble of possibilities," then the practices outlined in part II allow this ensemble to play in a different mode (De Certeau 1984, 98). Moreover, by conceptualizing mobile media composing as akin to musical modalities, I want to highlight the importance of play, improvisation, and experimentation within practices of place-based writing. The rhetorical potential of mobile media emerges through creative, critical engagement with contingent rhetorical elements of specific times and places. As such, the rhetorical practices in part II are not intended as instructions or a piece of sheet music that writers must follow note by note but rather as a generative aesthetic frame through which mobile writers can design creative rhetorical improvisations with (and against) a variety of spatial formations.

As a final note to this section, in using the terms "contested," "iconic," and "mundane," I do not seek to reduce the ontology of locations to this (admittedly limited) taxonomy. As Doreen Massey (2005) reminds us, space is a "constellation of trajectories" that enacts unequal effects across disparate cultural, rhetorical, and political registers; as such, locations are irreducible to a single representational enterprise (149). A public park, for instance, can be simultaneously contested, iconic, and mundane depending upon the lived realities of its inhabitants. A jogger passing by a protest in opposition to a new state bill banning homeless encampments might view the park as contested; a group of tourists listening to

an audio tour of the park's historical significance to the civil rights movement might come to perceive it as iconic; and a local resident who walks through the park every day to get to work might view this space (as well as the activities that take place within it) as mundane. Thus, these categories are not meant to define spaces as ontologically stable entities but rather to provide a generative conceptual frame through which mobile writers can better engage with the complex rhetorical conditions of various locations.

SPATIAL THEORY AND INDIGENOUS PHILOSOPHIES

New and emerging technologies are often conceptualized through geographic and/or colonial metaphors (e.g., "a new frontier of digital interaction," "unexplored territory in computational advancement," etc.). As scholars in writing and rhetoric continue to take up and innovate with the rhetorical capacities of mobile media, we should be mindful of how such discourses can bleed into our own approaches with mobile composing. In particular, and as I hope to demonstrate throughout *Composing Place*, we should attend to the insights of Indigenous theories and philosophies, which have long acknowledged the importance of land-based meaning-making and emplaced storytelling. As V. F. Cordova and Linda Hogan (2007) note, Indigenous philosophies reject the notion of space as a "static or empty" container for human activity and exploration (117). Rather, Cordova and Hogan point to a notion of reality in which people, places, and things are merely temporary articulations of a more fundamental dynamism animating a highly contextualized, emplaced, and material existence. Indeed, as I discuss in chapter 2, theories of space and place as dynamic articulations can help us to envision more capacious approaches to mobile composing beyond the human-centric discourses of augmentation.

In addition to engaging with Indigenous thought, we must also strive to foreground the contributions of contemporary Indigenous artists and digital practitioners that are working at the forefront of these innovations to digital media composing. As I discuss in more detail in chapter 3, by looking to the work of Indigenous digital artists like Alan Michelson, we can better understand how mobile and spatial computing technologies might be taken up as a decolonial practice. Michelson's work regularly employs technologies like augmented reality to counter colonialist ideologies and imagery in museum spaces and, as such, offers an avenue for exploring the intersections of Indigenous meaning-making and emerging forms of mobile composing.

In her 2012 address at the Conference on College Composition and Communication, Malea Powell (2012) describes space as that which has been "practiced into being through acts of storied making. . . . Spaces . . . are made recursively through specific, material practices rooted in specific land bases, through the cultural practices linked to that place, and through the accompanying theoretical practices that arise from that place" (388). Indigenous approaches to space and place remind us to attend to the local communities and Indigenous peoples that might be affected by our mobile composing technologies, technologies that will continue to shape and transform how spaces are "practiced into being" as sites of rhetorical interaction.

THEORIES, PRACTICES, AND PEDAGOGIES OF MOBILE WRITING

Part I, "Theories of Mobile Writing," considers the implications of mobile technologies on emerging practices of public rhetoric and place-based writing. Chapter 1 claims that mobile technologies afford new modes of rhetorical assemblage by attuning publics to emplaced rhetorical frequencies circulating through the spaces of everyday life. Drawing from mobile media projects created by various digital artists and locative media practitioners, I identify emerging modes of public rhetoric as practices in regional deliberation, networked epideixis, and forensic emplacement. Chapter 2 turns to a closer analysis of the rhetorics through which emerging mobile and spatial computing technologies are often discussed within popular and commercial contexts. I argue in this chapter that the rhetoric of augmentation entrenches a notion of mobile computing as a means for extending human agency into various forms of spatial control. As an alternative, I advocate for mobile writing as a practice of articulation, which I argue allows us to more fully attend to the emergent rhetorical dynamics at play in place-based digital compositions. Drawing on theories of articulation from rhetorical studies, spatial theory, and technical communication, I claim that using mobile media to write on location is less an act of augmenting an abstract reality than a highly emplaced process of articulating existing spatial relationships. As such, I argue, articulation offers a more capacious theoretical framework for engaging with emerging mobile media as technologies of place-based writing.

In Part II, "Practices of Mobile Writing," I delineate three emerging rhetorical practices with mobile media in specific spatial contexts. In explicating these practices, I draw from the work of innovative locative media artists, civic designers, and other digital creatives as well as my

own research and teaching practices with mobile media. Each chapter in part II proposes a particular compositional frame—refractive composing (chapter 3), layered composing (chapter 4), marginal composing (chapter 5)—to delineate how digital practitioners are utilizing the affordances of place-based digital media to (re)write the rhetorical boundaries of specific locations. Part II also features short point-of-interest interludes that describe a mobile media project I co-designed for a specific physical location. These points of interest serve to illuminate the key design principles and mobile composing strategies outlined within the previous chapter and further articulate an app-maker approach to mobile writing studies research. Additional documentation for these projects can be found at the book's companion website (https://www.composingplace.com).

Chapter 3 explores the rhetorical function of mobile media within contested spaces. Here, I draw from Mikhail Bakhtin's (1981) theories of heteroglossia to argue that composing in contested spaces is a process of refraction, or of conducting "experiments . . . in the language of another's discourse" (347). As a way of illustrating refractive composing practices, I turn to the work of digital artist Krystzof Wodiczko, whose projection-based artworks serve as a potential model for how digital writers might intervene into the dominant narratives of a contested space. This chapter also examines some of the legal, ethical, and rhetorical issues surrounding spatial contestation in an era of mobile computing. The corresponding point of interest for this chapter describes a site-specific mobile AR application I co-designed for use within SeaWorld–Orlando that operates as a counter-tour to the emplaced signage within the space of the park itself.

Chapter 4 examines recent efforts to incorporate locative and mobile augmented reality experiences into heritage sites across the world. In many cases, mobile media are being employed at such sites to (re)produce iconic and/or nostalgic narratives of historic spaces. I argue that layered mobile composing practices can enact a more decolonial approach to mobile writing by working to "delink" historic spaces and objects from a purely iconic rendering (Mignolo 2007). To illustrate how mobile media can be deployed to illuminate obscured histories, I conduct a place-based rhetorical analysis of the award-winning Cellhouse Audio Tour at Alcatraz Island. The Cellhouse Audio Tour is a key rhetorical element in the "public experience" of Alcatraz as a nostalgic icon of America's carceral history (Clark 2004), which not only obscures the systemic injustices of the present-day American prison system but elides the island's historically significant role in the history

of American Indian activism. By creating a more layered mobile tour of the island, I claim, mobile media can better facilitate visitors' somatic engagement with sites like Alcatraz as a complex site of historical inquiry. The corresponding point of interest for this chapter describes a mobile media history tour designed for Detroit's iconic Woodward Avenue. By addressing present-day issues like gentrification and economic inequality alongside other iconic elements of Woodward's past, this project demonstrates how layered composing works to facilitate emergent, diachronic engagements with the complex rhetorical layers of a historic space.

Chapter 5 explores the rhetorical function of mobile writing technologies in everyday spaces. Specifically, this chapter explicates "marginal composing" as a rhetorical strategy for composing new interactions with the repetitive, mundane elements of everyday spaces. I consider how work in radical cartography might inform our approach to mobile writing as a practice of tracing and visualizing previously marginalized patterns of infrastructural injustice. This chapter then conducts a speculative inquiry into how everyday mobile writing practices might intersect with advancements in embodied and reactive media. As Scott Sundvall and Joseph Weakland write, speculative approaches to emerging technologies "reposition rhetoric and writing scholars as proprietors of our technological future to come, rather than as secondary receivers, critics, and adjusters of our technological present" (2019, 4). In this, chapter 5 works to provoke more imaginative, speculative futures for how mobile media might be creatively deployed within everyday spatial contexts. This chapter's point of interest documents a mobile augmented reality advocacy project created in the city of Jacksonville, Florida, that memorializes cyclist deaths at dangerous intersections throughout the city. This project draws on Gregory Ulmer's theories of electronic monumentality to consider how mobile writing technologies can be used to amplify marginalized patterns of spatial injustice and advocate for infrastructural change.

By closely examining rhetorical applications of mobile media within a variety of spaces and contexts, part II works to demonstrate that mobile media hold the potential to counter entrenched spatial narratives, historicize the cultural and rhetorical layers of a location, and amplify voices that have been silenced within everyday spaces. Ultimately, it is my hope that digital writers will take up, modify, and remix the ideas in part II as we continue to experiment with the affordances of mobile media.

Part III, "Pedagogies of Mobile Writing," addresses the pedagogical implications of teaching with mobile media as a place-based composing

technology, focusing specifically on the benefits and barriers to integrating emerging mobile computing technologies within writing and rhetoric contexts. In chapter 6, I draw from my own classroom experiences to offer a set of pedagogical practices and guidelines for writing and rhetoric teachers interested in incorporating mobile writing technologies into their course curricula. Specifically, I discuss how mobile writing pedagogies require a "place-first" design approach, which works to facilitate more responsive, inclusive, and attentive spatial experiences through the affordances of mobile technologies. To further delineate how a place-first approach might play out in practice, this chapter includes a six-phase pedagogical sequence for implementing mobile writing projects. Overall, this chapter works to demonstrate that mobile media can not only be a generative means for engaging students in the ethical issues and rhetorical affordances of mobile composing technologies but also offers creative opportunities for extending student projects into local spaces and communities.

My concluding chapter argues that emerging place-based mobile experiences offer a viable platform for forging university and community partnerships through emplaced public humanities projects. In doing so, I hope to inspire a variety of community and university stakeholders—students, teachers, local advocacy organizations, digital humanities coordinators, etc.—to pursue collaborative initiatives that critically engage with new technologies as an emerging site of public pedagogy.

Although specific iterations of the technologies discussed throughout this book will no doubt change, I hope that the broader theoretical principles, rhetorical practices, and pedagogical applications of mobile writing that I offer will be of value into the future. Today, the word "writing" likely still inspires images intimately bound up with the specific technologies and infrastructures of the personal computer: blinking cursors on Microsoft Word documents, people hunched over laptops at a coffee shop, a team of writers collaborating on a shared Google Doc. However, what images might the word "writing" inspire twenty, thirty, or forty years from now? What technological frameworks will predominate our conception of what counts as writing and the digital and physical spaces through which it circulates? And, perhaps most important, what can (or should) we be doing in the *proximate now* to better understand the complex social, ethical, and rhetorical implications of this emerging technological and rhetorical paradigm? *Composing Place* serves in part as a response to these questions.