This Companion is about *studying media through new media*: for instance, making games to better understand their mechanics and politics, writing code and developing interfaces to explore their roles in reading and literacy, stewarding texts for online annotation and public discussion, participating in social networks to locate their biases and occlusions, assembling hardware to expose norms and change default settings, or composing audio, moving images, databases, and augmented reality applications as forms of scholarship at once similar to and different from academic essays. That is quite a list. And it is not exhaustive. Yet it speaks to the Companion’s principal impulse, which is to *combine media studies with digital humanities* to share with readers (especially those who are new to both fields) the various types of research that emerge.

Even though they share interests in technologies, media studies and digital humanities do not always converse. Perhaps this lack of dialogue is explained by divergent histories of theory and practice, with researchers in each field drawing from distinct canons and methodologies. In digital humanities, studies of texts from the 1800s or earlier are quite common; for numerous reasons, these texts are readily available in electronic form and thus conducive to computational analysis. In media studies, research tends to move from the 1800s forward and also focus on nontextual forms, such as sound, images, video, and games. Aside from these differences in substance and period, popular definitions of each field suggest a difference in technique, too: whereas media studies treats media and technologies as *objects of inquiry*, digital humanities *integrates* them into its methods. Or, if media studies is *about* media and technologies, then digital humanities works *with* them. Allow me to elaborate on this assumption for a moment.

Many media studies practitioners avoid the reduction of research to instrumentalism, where technologies are “neutral tools” that simply turn input into output. Against instrumentalism, practitioners should be cognizant of not only the values and histories embedded in technologies, but also how those values and histories shape interpretation. Related concerns in media studies include the risks of researchers colluding with the tech industry or adopting technologies too quickly. Early or enthusiastic adoption may be a knee-jerk endorsement of whiz-bang gadgets and alluring trends—a way to make your project appealing or relevant to the market without necessarily addressing the research questions, social issues, conceptual frameworks, matters of representation, and contexts of use at hand. Meanwhile, digital...
humanities practitioners experiment with and even build the infrastructures of new media, reminding us that technology is not just a metaphor or an object “over there,” to be philosophized at a remove. Technologies are constructed, maintained, preserved, and consumed, and they are intricately interlaced with labor and knowledge production in and beyond the academy. In short, digital projects demand a lot of work. Where there’s a technology, there’s also a team, some stories, millions of files, thousands of bugs and fixes, and plenty of politics. The result is significant attention to laboratory practices and technical competencies in digital humanities.

Inspired by Tara McPherson’s seminal *Cinema Journal* essay, “Media Studies and the Digital Humanities” (2009), this Companion demonstrates how such assumptions about media studies and digital humanities are in reality hyperbolic, if not mythological. Many researchers, including contributors to this Companion, move routinely across the two fields, which may mutually inform and enrich each other instead of fostering opposition. In fact, when they are combined in theory as well as practice, we could say that media studies and digital humanities work *through* new media as means and modes of inquiry. We can research media without resorting to naive enthusiasm for technologies or assuming scholarly positions from on high, somehow above or outside the very conditions we study. More specifically, we may borrow language from scholars such as Wendy Hui Kyong Chun (2005) and Karen Barad (2007) to argue that *we are entangled with the media we produce and research*, not separate from them. This position need not imply a lack of researcher awareness or a disinterest in social change. Rather, the point is to stress how all research is mediated; it is media all the way down. We influence and are influenced by our inquiries and materials, and—as exhibited by each chapter in this Companion—historicizing, assessing, and revising the roles media play in that influence renders our work more compelling and persuasive.

We might start by noting that “media” in this Companion is not synonymous with “the media,” or with communication outlets and conglomerates. As an alternative, we may begin with Lev Manovich’s five-part definition of new media, even if his definition privileges formal aspects over the contexts of functions and processes:

- New media are numerical representations (composed of digital code),
- They are modular (several distinct parts constitute an object),
- They are automated (their creation and maintenance involve a combination of people and machines),
- They are variable (versions eclipse originals and copies), and
- They are transcoded (a combination of computation and culture) (Manovich 2001: 27–48).

This last aspect, transcoding, is most central to this Companion, which foregrounds the *cultural dimensions* of studying media through new media: how new media are about power and control, for example. In doing so, the Companion also echoes W.J.T. Mitchell: “There are no ‘pure’ media” (2008: 13). Even with established categories such as sound, image, video, text, code, software, hardware, platform, interface, story, game, network, and even electricity, light, or water, it is impossible to isolate one medium from the next. Their affordances are fleeting and incredibly difficult to measure. And if no pure media exist, then it is also impossible to extract new media from the contingencies of their histories or settings, even as they transform, rot, disappear, and reappear over time, often without provenance or reference to the motivations for their composition. While anyone may unconsciously or wilfully ignore these histories and settings—these values and configurations—they are active ingredients of
new media’s composition; they are the stuff of making and remaking. Once they enter our frame of analysis, new media’s formal or technical aspects morph from the common sense of patents, diagrams, and instruction manuals into a hairball of human and nonhuman activities or a matrix of technology and culture.

We could therefore propose that the study of media is the study of entanglements. How and under what assumptions is sound entwined with image? Data with design? Network with node? Old with new? Subject with object? Aesthetics with politics? This approach to combining media studies with digital humanities does not bypass specificity (as if entanglements are antithetical to granularity and difference), and it does not endorse relativism (as if entanglements either absolve us from responsibility or claim equal positioning for everyone and everything) (Haraway 1988: 584). It instead underscores how new media are simultaneously abstract and particular, inhabiting seemingly contradictory positions within systems that invite and track action. It then asks us to account for where we are and how we participate in those systems—in the complex mesh of apparatus with process. This is no simple task, especially when we face the litany of things media may be: both social and material, carrier and content, form and substance, portal and edge, ephemeral and permanent, you and other. Of course, practitioners usually select their preferred terms for research, and these terms unavoidably shape how people draw boundaries and assume responsibility for their demarcations.

Media. A fascinating mess. In the following pages, four palpable issues repeatedly surface from it all. These issues are not just concerns shared by some or even all the authors; they are also indicators of what makes the intersection of media studies with digital humanities unique and necessary right now.

• **Beyond Text:** With its prevalence in English departments and studies of literature and language, digital humanities frequently deems text its primary medium for both composition and analysis. Against this grain, the following chapters give us a very concrete sense of digital humanities and media studies beyond text for inquiry. By extension, they prompt practitioners to consider an array of media in tandem with a constellation of modalities, including listening, seeing, scanning, touching, skimming, hearing, watching, smelling, feeling, toggling, wearing, processing, and inhabiting. These modalities remind us how the study of media through new media is an embodied or material activity, which may be both situated in and distributed across space and time as well as people and machines. Embodiment (including questions of affect and labor) and materiality (including questions of inscription, plasticity, and erasure) are fundamental to research as an entanglement.

• **Labs and Collaboration:** The laboratory, broadly defined, is a core component of many chapters in this Companion. A majority, if not all, of the methods are experimental. They combine disciplines, privilege trial and error, underscore action in context, or develop custom technologies. Rarely is this work done alone, and even when the chapters are written by individuals they draw upon and acknowledge efforts by teams and collectives. Although they are now ubiquitous features of digital work, labs and collaboration remain understudied in the humanities. This Companion contributes additional research to address that gap.

• **Social Justice:** The content of this Companion resists formal or technical treatments of media as if technologies are outside of time, history, culture, society, and material conditions. Many of the chapters focus on the entanglements of technologies with justice, oppression, and power. Rather than asking what media are, they ask what media do.
How do new media unfold in context? How are they made, by whom, and for whom? According to what norms or standards, and with what influence on social relations? With what acknowledgments and exclusions? How do they circulate, regulate, and discipline? How are they modified or repurposed, and with what changes over time? These questions encourage a media studies and digital humanities of the present moment, when technologies may be modes of activism and decolonization instead of instruments or gadgets.

• Expanding Participation: Instead of reducing media studies or digital humanities to practices such as programming—or to the technical particulars of code and platforms—the chapters included here underscore a range of scholarly participation in new media from across disciplines and experiences. Through their methodologies, the authors may intervene in a given research area by prototyping media through new media, but they may also conduct archival research, write monographs, pursue ethnographic methods, or manage scholarly resources, for instance. One by-product of this range is a thorough account of what “making,” “doing,” or “building” really mean in our current moment. These forms of “active” participation need not be restricted to the creation of shiny, tangible, and measurable things. They need not rehearse the myth of lone white male inventors, either. Scholarship in this Companion involves (among other things) performing, writing, thinking, speaking, listening, resisting, revising, editing, curating, maintaining, fixing, and tinkering, the particulars of which often escape us. Through this expansive approach to participation in new media, the chapters more accurately reflect the actualities of research practice and move beyond the superficial hype of making and building stuff.

To give these four issues some structure, especially for readers who are new to media studies and digital humanities, I organized this Companion into five sections, followed by a Glossary of Acronyms and Initialisms as well as a Glossary of Projects mentioned in the chapters:

Part I. Access, Praxis, Justice: This section highlights social justice issues that permeate the entirety of the Companion. It also demonstrates how social justice work is enacted through new media as a form of praxis, in part by expanding the definition of “access” through an emphasis on participation, but also by sharing various modes of activism involving new media. This part features Tara McPherson on feminist film studies; Alexandra Juhasz on “ev-ent-anglement”; Moya Bailey and Reina Gossett on social media; Radhika Gajjala, Erika M. Behrmann, and Jeanette M. Dillon on cyberethnography; Aimée Morrison on public scholarship; Michelle Habell-Pallán, Sonnet Retman, Angelica Macklin, and Monica De La Torre on convivencia and archivista praxis; Roopika Risam on decolonization; Isabel Cristina Restrepo Acevedo on interactive narratives; Jacqueline Wernimont and Elizabeth Losh on a “long maker table”; Elizabeth Ellcessor on glitch and disability; Amanda Phillips on videogames and social justice; and Elizabeth LaPensée on Indigenous game design.

Part II. Design, Interface, Interaction: Design, interfaces, and interaction are too often considered additive, as if they are features layered over code just before release. Against such tendencies, this section exhibits the centrality of design to critical and creative inquiry with media. This part features Anne Balsamo on the cultural implications of design; Patrik Svensson on the design of space; Kari Kraus on speculative design; Patrick Jagoda and Peter McDonald on experience design and affective play; Mary Flanagan on critical play; Jessica Rajko on embodied thinking and wearables design; Kim Brillante Knight on wearable interfaces; Maureen Engel on deep mapping; and Beth Coleman on smart subjects in the Internet of Things.
Part III. Mediation, Method, Materiality: Instead of treating media as containers that transmit content, this section of the Companion attends to various forms of mediation, affect, and materiality important to humanities research. Many of the authors also translate mediation into a method for inquiry. Here, mediation is not something delegated to instruments or overwritten by research techniques; it is what prompts interesting questions. This part features Tara Rodgers on sound; Shintaro Miyazaki on algorhythmics; Matthew Fuller on software studies; Nina Belojevic and Shaun Macpherson on physical computing; Steven E. Jones on the eversion; Anna Munster on networks; Mark Williams on television; Gregory Zinman on moving images; Virginia Kuhn on analytics; Paul Benzon on media archaeology; and Shannon Mattern on infrastructures.

Part IV. Remediation, Data, Memory: In the humanities, how is media preserved? What role does it play in memory? When does it become “data”? And how does it change across formats over time? Moving between old and new media, the past and present, this section of the Companion addresses these questions and more. In the process, it builds on Jay David Bolter and Richard Grusin’s foundational text, Remediation (1998). This part features Kathleen Fitzpatrick on obsolescence and innovation; Jon Bath, Alyssa Arguckle, Constance Crompton, Alex Christie, Ray Siemens, and the INKE Research Group on futures of the book; Howard Rambsy II on collaborative annotation; Dene Grigar and Stuart Moulthrop on preserving born-digital texts; Timothy Murray on curating and preserving new media art; Victoria Szabo on apprehension through augmented reality; Bryan Carter on teaching Digital Afriaca Studies; Angel David Nieves on 3-D histories of South Africa; Kimberly Christen on Indigenous systems of knowledge and archival practices; Eric Hoyt, Tony Tran, Derek Long, Kit Hughes, and Kevin Ponto on applying scaled entity search to media history; Jeffrey Schnapp on the art of description; and Lauren F. Klein on data visualization and memory.

Part V. Making, Programming, Hacking: Practices such as making, programming, and hacking intertwine in many ways with writing, ethnography, and even archival work. Underscoring the critical and creative dimensions of these practices, this section surveys noninstrumentalist approaches to code, platforms, and machines that privilege inquiry over proof. This part features Annette Vee on programming and literacy; Noah Wardrip-Fruin on expressive processing; Anastasia Salter on building interactive stories; Mark C. Marino on critical code studies; Jacob Gaboury on critical unmaking and queer computation; Kat Jungnickel on learning from doing; Jennifer Gabrys on citizen sensing; and Daniela K. Rosner on design as inquiry.

Ultimately, the methods and methodologies presented here do not cohere into an exhaustive or totalizing entanglement of media studies with digital humanities. The differences between them are telling and meaningful, and—encouraged by the HASTAC community, including the affirmative work of Fiona Barnett and Cathy Davidson (see Davidson 2011)—it is in the spirit of difference that I invite readers to study media through new media. How are the boundaries drawn, and to what effects?

References
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