



To Teach, Critique, and Compose: Representing Computers and Composition through the CIWIC/DMAC Institute

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Abstract

This article examines how the Computers in Writing-Intensive Classrooms (CIWIC)/Digital Media and Composition (DMAC) Institute has realized founding director Cynthia L. Selfe's commitment to prioritizing people first, then teaching, then technology. I analyze how institute curricula introduce and model pedagogies for teaching digital composing, foster networking among participants, articulate a critical stance toward technology, and encourage newcomers to enter the field as administrators and scholars (as well as teachers). I also draw on participant documents (social media posts, publications, and CVs) to investigate the uptake of these ideas. Moving forward, I suggest that in light of the institute's growing emphasis on digital composing, 1) knowledge-making should be seen as the larger frame for CIWIC/DMAC work, and 2) research should be added to the institute's existing articulation of the field in terms of people→teaching→technology.

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"I've never been to a workshop, meeting, conference, or class where people have been made to feel more enabled, encouraged, and nurtured to work through their ideas."

–CIWIC 2000 Participant

"I learned a few important things about multimodal composing these past few days... I also remembered a lot of things I had forgotten about composing in general."

–J. James Bono, DMAC, 2008 Participant

"Doing DMAC has made me realize for the first time that I am a professional, and that's a really wonderful feeling."

–Kathryn Perry, DMAC 2012 Participant

In the 30 years since its founding, the Computers in Writing-Intensive Classrooms (CIWIC) Institute, and its successor the Digital Media and Composition (DMAC) Institute, has become such a familiar feature of the computers and composition landscape that people talk about *doing* CIWIC/DMAC as a signifier of technological professional

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development. Doing the institute means working for two weeks with founding director Cynthia L. Selfe, whose work as a researcher, teacher, and mentor sophisticated, critical, student/teacher-centered stance toward technology. Doing the institute signifies familiarity with scholarship at the intersections of technology, literacy, and pedagogy, and implies hands-on experience with digital composing. It means entering a community of teachers and scholars connected by their interest in integrating digital technologies into teaching and research on writing, rhetoric, literacy, and related fields like literary studies.

This project investigates what it means to “do” CIWIC/DMAC, positioning the institute as an entry and articulation point that helps define computers and composition as a field. I examine the priorities the institute highlights, the pedagogies it models, the professional community it fosters, and the professional activities it encourages. To construct a history from both above and below, I examine how participants take up institute concepts and practices to consider CIWIC/DMAC’s impact on computers and composition and related fields. This approach adds systematic documentary analysis to existing narrative accounts of CIWIC/DMAC (see [Journet, 2007](#)) and recommendations of the institute as a site for technology training (see [McGrath, 2010](#); [Braun, 2013](#)).

1. A brief history of the CIWIC/DMAC institute, by way of its mission

CIWIC was founded in 1986 at Michigan Technological University by Selfe and an MTU colleague, Billie Wahlstrom (Selfe, personal communication, June 7, 2014). The 1986 call for applications described CIWIC as an opportunity for “practical, hands-on experience in the effective use of word processing, style analysis, and spelling programs,” providing “techniques for setting up computer-assisted writing labs; and strategies for training teachers and students to use computers” (“[Computers in writing-intensive classrooms](#),” 1986, p. 80). Although technology was central, the institute focused on teaching and learning, opening it to participants with varying levels of technical expertise but who shared interests in literacy and composing. As Gail E. Hawisher, Paul LeBlanc, Charles Moran, & Selfe (1996) explained, this period of the history of computers and composition was characterized by a shift toward more critical stances toward technology, informed by social and critical theories. At CIWIC, this new orientation translated into interrogating how computers related to composition pedagogy, problematizing technological utopianism, interrogating access inequalities, and working with institutional stakeholders to support writing labs.

Throughout the 1990s, CIWIC began integrating Internet-based communication technologies and multimedia into its curriculum as desktop computers became more powerful and gained network connectivity (see [Hawisher, LeBlanc, Moran, & Selfe, 1996](#), pp. 180–184, 226–232).¹ When Anne Wysocki joined the CIWIC staff in 2001, the institute expanded from a single program to three separate tracks in response to the growing opportunities for multimodal, interactive composing:

- **Approaches to Integrating Computers into Writing Classrooms** (CIWIC-AIC, led by Selfe) focused on integrating computers into writing instruction, carrying on CIWIC’s original focus
- **New Media** (CIWIC-NM, led by Wysocki) focused on training participants in building born-digital, multimodal, interactive texts
- **Independent Projects** (CIWIC-IP) supported scholars working on their own digital projects with CIWIC staff and Michigan Tech resources (“[Announcing a suite of summer institutes for teachers](#),” 2001)

Selfe took the institute with her to Ohio State University (OSU) in 2006, where it was renamed DMAC: the Digital Media and Composition Institute. At OSU the institute converged back into a single program, emphasizing rhetorical strategies for multimodal, digital composing in a variety of genres and in light of concerns about access, agency, representation, and other issues. DMAC retained CIWIC’s commitment to hands-on digital production, shifting focus

¹ During the 1990s, CIWIC introduced participants to the World Wide Web, hypertext, email, and electronic conferencing and taught attendees to compose in image editing software like Photoshop and html-editing software like Macromedia Dreamweaver (see “[Computers in writing-intensive classrooms](#),” 1993, 1995, 1996a, 1996b, 1998, & 1999; Selfe, personal communication, June 7, 2014).

to integrate multimodality into participants' teaching and research. This attention to participants' institutional and personal-professional concerns is another hallmark of the institute, as Selfe has argued:

Technology is not really as important as the people. So, we ask things like, does the technology get in the way of what we are doing? Or does it help us in what we are doing? What is the upshot? (as cited in Beck, 2013, p. 351)

Or, as DMAC participant Rachael Ryerson (2014a) tweeted, paraphrasing Selfe's parting comments to attendees: "#dmac14 in a nutshell: 1. people 2. instruction 3. technology."

2. Documenting CIWIC/DMAC's history

To examine how the institute has represented the field of computer and composition and to investigate how participants have taken up these ideas, I gathered "official" texts produced by the institute (announcements, curricula, and readings) and "unofficial" texts produced by participants (social media posts made during the institute,² publications developed at the institute, and online professional documents created by alumni after attending the institute³). I analyzed curricula to get a sense of the institute's content over time, identifying recurrent themes in readings, discussions, instructional methods, assignments, and extracurricular activities. As I will discuss, these themes related to pedagogy, networking, the social context/use of technologies, and participant professionalization. I then examined participants' social media posts looking for these same themes, adding codes to describe additional activities (mostly social ones like recommending references, joking with one another, and commenting on the experience of attending the institute) to describe content not found in the official documents. In some cases, the social themes that emerged from the social media posts directed me back to official CIWIC/DMAC materials to examine the extent to which these interactions were encouraged by institute curricula. Finally, I analyzed participants' professional documents, noting their job titles, the role technology has played in their teaching, any editorial and/or administrative positions they've held, and their publishing histories.

This approach has drawbacks, related to missing documents and limited causal evidence. I was able to gather complete curriculum records for all DMAC Institutes, but CIWIC materials were not systematically archived. As a result, I'm working with a smattering of archived CIWIC web pages and full curricula for 3 years (1998, 2001, and 2005).⁴ Participant documents are similarly skewed toward DMAC because before 2004, CIWIC used locally-stored files and conferencing software like Daedalus for discussion among participants, which were not archived. Records of discussions and reflections by DMAC participants are still available online, and consequently play a much larger role in this project. Finally, I located alumni professional documents using a complete list of attendees for DMAC, but only a partial list of CIWIC attendees, who are therefore underrepresented in my quantitative analysis of participants' work after attending the institute.⁵ CIWIC/DMAC imbalances aside, the kind of evidence I draw on here does not lend itself to claiming direct causal relationships, but instead to demonstrating the diffusion of institute ideas. As a result, the history of CIWIC/DMAC I present here is partial, and I hope it will encourage others to study the institute and its impact using other methods and perspectives. This account focuses on the pedagogies the institute models, the professional environment it cultivates, the critical and diverse scholarship it features, and how it cultivates participants' professional development through hands-on digital composing work.

² The social media included in this study include comments posted on the official institute blogs and tweeted using the #dmac12, #dmac13, and #dmac14 hashtags. The institute maintained official blogs for CIWIC 2004–2005, DMAC 2007–2008, and DMAC 2011–2013. Except for the DMAC 2007 blog, all institute blogs are still online. Since 2012 the institute has maintained an official Twitter profile (dmacinstitute) and encouraged participants to live-tweet during DMAC using the official institute hashtags.

³ I define "professional documents" here as texts created by the participants to describe themselves professionally. These include CVs; university profile pages; professional websites; LinkedIn profiles; and academic networking sites like Academia.edu, Mendeley, and ResearchGate.

⁴ To flesh out and contextualize CIWIC in light of scarce documents, I interviewed several people who attended CIWIC in the early 2000s about their experiences. While not cited here, these interviews informed my interpretation of CIWIC documents.

⁵ Accounting for duplicates (some people attended CIWIC more than once), the total number of recorded participants for CIWIC and DMAC is 588. This figure includes all DMAC attendees (2006–2014), and all attendees of CIWIC 1994–2004. That leaves 8 years unaccounted for, suggesting a total of ~800 participants over the institute's 30-year history.

3. Presenting and modeling a writing-centered approach to teaching with technology

3.1. Connecting old and new literacies

As a professional development institute for English and writing studies teachers, CIWIC/DMAC begins with a focus on literacy instruction in light of technological changes in the production, circulation, and reception of texts. During its second decade, CIWIC began with this sequence of sessions:

- Student Writing Characteristics
- Assumptions about Writing and the Teaching of Writing
- Introducing Michigan Tech’s Center for Computer-Assisted Language Instruction [the institute’s home lab]
- Integrating Computers into Writing Programs (CIWIC, 1998; CIWIC-AIC 2001 & 2005)

This progression clearly put the teaching of writing first, and positioned technology as a way to support instructional goals. DMAC opening session titles indicate a similar stance:

- Multimodality and Literacy (DMAC 2006)
- Making a brief/case for multimodal literacy (DMAC 2007)
- Thinking about Multimodal Composition (DMAC 2008, 2009, 2010, & 2011)
- Why English Teachers Should Think about Digital Technology, Design, and Multimodal Composition (DMAC 2012, 2013)
- Using Audio to Think About Multimodal Composition (DMAC, 2014)

Considering the rhetorical affordances of digital, multimodal texts—especially ones published online—also stands out as a major feature of the institute overall. Sessions like “World Wide Wit” (CIWIC, 1998), “Hypertext Fictions” (CIWIC, 1998), and “Collaborative Web Sites” (CIWIC-AIC, 2005) highlighted the playful, interactive types of content found online in order to introduce teachers to Internet culture and suggest ways they could incorporate new genres (as well as new technologies) into their pedagogies. Born-digital texts featured at CIWIC-AIC (2005)—such as *Poems that Go*’s interactive flash poetry and early articles from *Kairos* and *Computers and Composition Online*—went further, modeling how the multimodal affordances and playful conventions of Internet communication could weave textual aesthetics together with scholarly rigor.

Recent DMAC institutes (2011–2013) have extended this focus on digital rhetorics, using Susan H. Delagrange’s work on visual argument through arrangement and multimodal revision to examine how digital texts redefine rhetoric and the composing process. Discussion of Delagrange’s work on Twitter showed participants taking up her theories as watchwords:

- Beauty and utility linked via “elegance” in digital projects: code, content, style. #dmac12 (Hagood, 2012c)
- Delagrange: Techne=knowledge in the head + knowledge in the hand #dmac13 (Rodrigue, 2013b)

While design-oriented sessions like Delagrange’s encouraged participants to think about production, DMAC 2014 took up digital activism by way of Krista Bryson’s *West Virginia Water Crisis* (2014) to add a focus on the social context, circulation, and reception of digital texts. Participants read Bryson’s blog, which gathered stories from West Virginians affected by the January 2014 Elk River chemical spill to create a citizen-journalist counter narrative to corporate and government reports downplaying the spill’s severity. Participant and staff tweets accompanying Bryson’s discussion responded to the issues her blog provoked about civic rhetoric, vernacular media production, social networking, representation, and public intellectualism:

- Twitter reached the talking heads; Facebook reached the people @klbryson #dmac14 #digital activism (Hancock, 2014c)
- digital activist pieces embrace interactivity; the “author” relinquishes control #dmac14 (Conatser, 2014)
- From @klbryson, we learn the simple yet potent power of witnessing [*sic*] and representing to others. #dmac14 (Selfe, 2014b)
- Fascinating discussion about @klbryson’s digital activism and rhetorical roles as scholar / citizen / journalist / storyteller #dmac14 (Sloan, 2014)

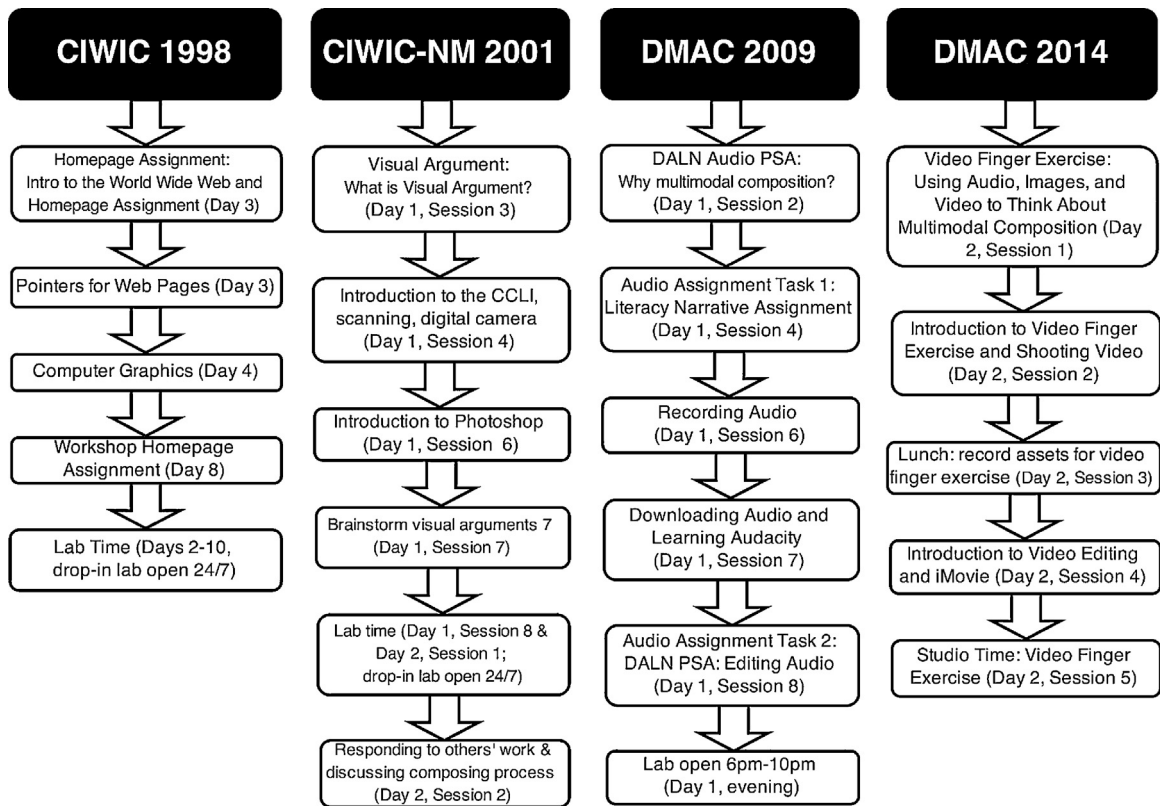


Figure 1. CIWIC/DMAC first assignment sequences.

These posters considered how digital texts circulate, interrogated the dynamics of ownership when public intellectuals and community members collaborate on digital texts, recalled ethical questions about qualitative research and representation, and expanded the conception of audience beyond classroom and profession to strive for community impact and political reform.

Using writing instruction as a point of entry, the institute asks participants to consider changing teaching environments (computer labs), new modes of composing (media production software), and new methods of distribution and reception (digital activism). These experiences and examples prompt participants to re-think—as [Bono's \(2008\)](#) epigraph illustrated—what they already know about writing and rhetoric, parsing what changes and what endures when composing moves into digital, interactive spaces.

3.2. Collaborative and studio approaches to teaching with technology

Throughout its history the institute's pedagogical models have addressed teaching with technology as well as the conceptual questions Delagrange and Bryson raise about design and delivery. In her account of attending the institute, [Journet \(2007\)](#) highlighted the applied pedagogical experience conferred by the institute's approach to digital composing:

DMAC provided much-needed support—readings and discussion, hands-on instruction, and one-on-one consultation. But it was not until I actually started to work with cameras and audio recorders, use editing software, or put together clips that I really began to learn how to compose with digital media. (p. 114)

To foreground producing digital texts, participants begin working on projects right away, using the activities Journet mentioned. These assignments range from hand-coding a webpage ([CIWIC, 1998](#)) to drafting a visual argument ([CIWIC-NM, 2001](#)) to creating a 30-second audio announcement ([DMAC, 2009](#)) to composing a 90-second video ([DMAC, 2014](#)). As illustrated in [Figure 1](#) below, these assignment sequences

- begin with a conceptual introduction that situates the project in terms of the rhetorical affordances of different media,
- specify a deliverable,
- offer demonstration and direct instruction, and
- provide lab/studio time for participants to do sustained work.

The experience of producing multimodal texts brings home the semiotic potential of digital media described in institute readings, as DMAC 2007 participant [Tony O’Keeffe \(2012\)](#) explained: “what I began to understand after just a couple of days’ work with digital tools is what multimedia theorists commonly refer to as the various technologies’ ‘affordances’—what each one makes it possible to achieve.” The “couple of days’ work” O’Keeffe refers to plays out in lab time, during which attendees work on their projects alongside staff and other participants. Live-tweets from DMAC that record tips and strategies shared by participants demonstrate how lab time provides the kind of scaffolded, independent composing work Journet and O’Keeffe describe:

- Pro tip from Cindy @Selfe2 on recording audio: In a pinch, your car is a pretty soundproof little recording studio. #dmac12 ([dmacinstitute, 2012](#))
- Annotate PDFs with Foxit (free) #dmac13 ([Rodrigue, 2013a](#))
- YouTube allows a “private with a link” option, so the vid isn’t in the search options #dmac14 ([Hancock, 2014a](#))

Although these tweets only capture some of the real-time consulting that goes on during lab/studio time, they speak to the kind of learning afforded by diving into production in the institutes’ resource-rich environment. Working side-by-side in the lab also encourages participants to work together, feed off one another’s energy, ask for help, and seek feedback, as indicated by these observations about project development and the lab’s atmosphere:

- Day 1 of DMAC, and we’ll [*sic*] already starting to produce interesting artifacts. Audio literacy narratives. Woot! #dmac12 ([Hagood, 2012b](#))
- Dramatic shift in the shape of my DMAC project. Love the way the collaborative setting encourages organic evolution! #dmac12 ([Miller, 2012](#))
- Special thanks to Erin [a staff member] for helping so many of us in the lab today! Finally started to get that multimodal “writer’s high”.. . #dmac14 ([Parfitt, 2014b](#))

These tweets echoed the [CIWIC \(2000\)](#) participant’s epigraph, emphasizing the benefits of the institute’s supportive work environment. [O’Keeffe \(2012\)](#) elaborated on the value of such co-present studio work: “multimedia work suggests an image borrowed from that physiology on which our lives depend: the systole of individual, solitary work which leads inescapably to the diastole of collaborative sharing, for both judgement [*sic*] and further development.” The institute’s studio environment doesn’t only provide help and trouble-shooting, but as O’Keeffe and Miller noted, also creates an environment of “supportive judgment” for developing and re-thinking projects.

Similar to Journet’s observation that she couldn’t really understand multimodal composing until she began creating multimedia texts, experiencing the institute’s studio approach is an important part of its pedagogical professional development. CIWIC/DMAC’s self-directed, scaffolded studio environment shows teachers how to support their own students’ media production by positioning teachers as students of digital composing. The institute balances direct instruction with individual trial and error, encourages one-on-one consulting with staff and other participants, and allows participants to observe others and experience themselves working at the limits of their competence.

3.3. Considering pedagogical and curricular influence

The impact on individual teachers and scholars is one mark of the influence of the institute. However, tracing how these teachers and scholars have returned to their home institutions to shape curriculum, champion new technologies and labs, and more is another method of analyzing the influence of the institute. Many alumni do teaching and administrative work that positions them to put CIWIC/DMAC ideas and techniques into practice at their home institutions, recorded in [Table 1](#) below. The majority of institute alumni (332) whose work and profiles I reviewed for this article hold teaching positions, and 139 of them report teaching classes that incorporate technology in a significant way. These

Table 1
Alumni teaching and administrative work after attending CIWIC/DMAC.

Teaching	
Classroom teaching, any course or subject	332
Teaching courses on digital media composing or theories of media and technology	139
Administration	
Directing writing program, writing across the curriculum program, or writing course	80
Serving on technology advisory committee or providing technology training	35
Directing instructional technology program, center, or department	22

figures suggest that alumni have the opportunity to apply CIWIC/DMAC pedagogies in their teaching. Furthermore, Table 1 also shows that numerous institute alumni also serve as writing program directors and curriculum developers, where their choices about curriculum, staffing, and assessment affect a great number of students. Finally, institute alumni who run instructional technology centers and services point to additional ways CIWIC/DMAC's approaches to technology and pedagogy can be disseminated across participants' home institutions, potentially reaching beyond English departments and writing programs.

Ties to institutional and professional sponsors also encourage this kind of broader impact. Many participants receive funding to attend CIWIC/DMAC, and are therefore accountable to their sponsors for directing technology training workshops, creating resources, or developing curricula once they return home. Bonnie Newcomer (1998), who attended CIWIC with the support of the Kansas Association of Teachers of English (KATE), explained how the responsibility to "bring CIWIC home with you" (a recurrent session title throughout the institute's history) fostered the spread of institute ideas:

The goal of the KATE organization was for me to hobnob with English teachers from across the United States so I could bring back ideas to share with Kansas teachers via newsletter and a presentation at KATE Conference [19]98. My goals were much the same with the additional goal of acting as a mentor for Kansas teachers who were entering strange terrain as they left the world of paper and entered the world of bits and bytes.

Further research is needed to study systematically whether and how institute ideas have been implemented at participants' home institutions,⁸ but participant narratives and professional documents show that the conditions for such influence certainly exist.

4. Space, time, and socialization among participants

Participants' experience of the institute itself offers one approach to examining CIWIC/DMAC's impact on attendees themselves. Curricula and real-time comments show how the institute's structure encourages attendees to socialize and network around the ideas and methods they encounter, deepening their engagement with institute content and increasing the likelihood that they will adopt it. To promote this kind of retention and reflection, the institute includes an extracurriculum of "official" social events, informal gatherings, and recommendations for local activities. Indeed, working with others while navigating new technologies, new approaches, and new theoretical frames for thinking about digital writing requires the shaping of community at the institute and beyond (see Boyle et al. and Stewart in this special issue). This extracurriculum allows participants to work with and re-encounter institute concepts with peers, potentially (as I will argue) encouraging them to work through and question institute ideas as part of their ongoing professional development.

CIWIC's "official" social events have included a picnic at a local park during the first few days of the institute and a dessert night (sometimes accompanied by a talent show) during the second week. Strategically located away from the institute home base at Michigan Tech, these events provided an informal atmosphere for participants to talk about their work and shared interests, evident in photos from these events (see Figure 2). After the institute moved to Ohio State in 2006, the official social events shifted to include an evening potluck at Co-Director Scott Lloyd DeWitt's house and

⁸ Research by DMAC alumni Laura McGrath and Letizia Guglielmo (2014) on the workshop they led to help English faculty at Kennesaw State University to integrate multimodal composing in their teaching provides a rare example of this kind of research. McGrath and Guglielmo traced



Figure 2. Photographs from “official” CIWIC extracurricular activities: institute picnic (Day 3, 1996) [left]; participants talking [middle] and singing [right] at dessert night event at Selfe’s house (Day 7, 1998).

a party at Selfe’s house, where (beginning in 2009) participants screened their short video projects.⁹ As participant tweets about the 2014 screening suggested, these events foster professional relationships between participants as they view and respond to one another’s work:

- The concepts in 90 were SO GOOD! #dmac14 #proudtoknowallofyou (Hancock, 2014b)
- @llcadle your #conceptin90 was so beautiful. And moving. #dmac14 (VanKooten, 2014a)

The institute schedule also includes optional field trips and recommendations for after-hours activities that encourage participants to socialize. Examples of these activities have included:

- Cruise of the Copper County area around Houghton, MI (CIWIC 1998; CIWIC-AIC 2001; CIWIC-AIC, 2005)
- Exhibition of digital artwork by Wysocki (CIWIC, 2001, CIWIC-AIC, 2005)
- Drinks at a campus-area bar the first evening of the institute (CIWIC, 2005)
- Gallery open house night in Columbus, OH’s Short North Arts District (DMAC, 2009, 2010, 2011, 2012)

A narrative poem written by Laura Bartlett, Chidsey Dickson, Doug Eyman, and Colleen Reilly (2004) about their experience at CIWIC and set to Lou Reed’s “Take a Walk on the Wild Side” captured how these informal activities help create a convivial familiarity that fosters professional relationships. Barlett et al’s allusion to Reed’s song encompassed the unconventional work the authors did during institute sessions:

Cindy [Selfe] teaches us to pay attention
 In a world where there’s not enough invention.. .
 Audacity ruled the AIC
 Visual set new media free (p. 469)

And the poem’s inside jokes captured the playful collegiality the institute encourages among participants:

Cheryl [Ball, CIWIC Associate Director] never once led us astray
 She wrote her dissertation in one day
 Drove us around in the van
 Showed us the monks [of Holy Transfiguration Skete in Eagle Harbor, MI] who made that jam
 And said hey babe.. . take a walk on the wild side
 Hey Doug, don’t you dare walk up that waterfall (p. 469)

the pedagogies they presented at KSU all the way from the 2006 DMAC Institute they attended to the classrooms of colleagues who attended their workshop, suggesting at least one way to study institute impact on participants’ home institutions.

⁹ Because of changes in DMAC’s assignment structure, participant videos have been screened at evening events hosted by both DeWitt (2009–2013) and Selfe (2014).

While the Barlett et al. poem was playful and referred only obliquely to the writers' academic work, contacts made at the institute can also underpin more explicitly professional ties between participants. This Twitter exchange between two DMAC 2014 participants in anticipation of the Computers and Writing Conference illustrated the kind of networking the institute can facilitate:

- @crystalvk excited to see DMAC folk again! #networking #dmac14 #cwcon (Ryerson, 2014b)
- @RachaelRyerson totally!! Who else is going besides @selfe2, @selfe3, @harleyferris, and @myergeau? #dmac14 #cwcon (VanKooten, 2014b)
- @crystalvk @RachaelRyerson @selfe2 @selfe3 @harleyferris @myergeau we will see but I think you got them all! #dmac14 #cwcon (Ryerson, 2014c)

CIWIC/DMAC's extracurriculum provides time, space, and colleagues that extend participants' engagement with institute ideas beyond the daily sessions, cultivating intellectual contacts that can lead to ongoing conversations about technology and literacy.

5. Critical perspectives on technology and the diversity of the field

While the institute's extracurriculum focuses specifically on attendees as people, another way in which CIWIC/DMAC prioritizes people over technology comes from the critical social theories woven into the curriculum. These topics have varied widely over the years, due in particular to the institute's inclusion of invited speakers and visiting scholars. These guest experts have allowed the institute to address topics ranging from intellectual property (CIWIC, 2001) to usability (CIWIC-AIC, 2001, 2005) to community literacies (DMAC, 2008, 2012, 2013) to MOOCs (DMAC, 2013, 2014), delving into research that complicates and questions trends in computers and composition, higher education, and technology. I focus here on sessions selected from across CIWIC and DMAC that discussed the relationship of technology to gender, race, and accessibility in order to illustrate the intellectual diversity of the institute curricula, using participant texts to discuss attendees' reception and uptake of these ideas.

Alongside sessions focusing on material and ideological access to technology along lines of race and class, CIWIC, 2001 featured a session led by guest speaker Gail Hawisher titled "Women Writing the Web: Graphic Images at the Century's Start."¹⁰ At the session, Hawisher shared research she conducted with Patricia Sullivan (1999) on the visual features of websites representing women, comparing the images of female bodies found in commercial, academic, and personal/professional sites.¹¹ Despite their interest in exploring the extent to which the web allowed women to cultivate multiple subjectivities and foreground embodied experience, Hawisher and Sullivan (1999) observed that the majority of commercial websites objectified women's bodies as sexual objects (pp. 274–275), while academic sites ignored them to present women as disembodied minds (pp. 277–281). Only a few hand-crafted personal/professional sites engaged in the kind of identity play and virtual embodiment that Hawisher and Sullivan theorized through the lens of materialist and cyberfeminism (1999, pp. 281–287). Presenting this research at CIWIC allowed Hawisher to alert participants to sexism in online images and call on attendees to resist these norms by foregrounding embodied, gendered experience in their own online digital presences.

Similarly, a pair of sessions on race, technology, and representation led by Beverly Moss and Valerie Kinloch at DMAC 2008 examined how research on technological literacy frequently glossed over race. Their sessions drew on their own and others' research to counteract this blind spot by foregrounding difference and exposing bias in the use and study of literacy technologies.¹² In addition to the real-time conversations Moss and Kinloch facilitated during that day's sessions, the discussion of race and technology continued after-hours on the institute blog, where participant

¹⁰ Both CIWIC-AIC and CIWIC-NM participants attended Hawisher's session.

¹¹ The description of the session I provide here draws on Hawisher and Sullivan's "Fleeting images: Women visually writing the Web" (1999), which was assigned reading for this session and provided additional detail beyond the brief description of the session given in the CIWIC-AIC and -NM 2001 schedules.

¹² The readings for Moss and Kinloch's sessions included Samantha Blackmon's (2003) research on using digital, multicultural pedagogies in majority-white classes; Bruce Sinclair's (2006) work connecting African American history to the history of technology; Kinloch's (2007) research on Black youths' use of art to respond to gentrification in Harlem; and Moss's (2009) work on approaches to studying community literacies in the twenty-first century.

Douglas Walls offered a series of reservations about digital media’s potential as a tool for empowerment. Walls (2008a) foregrounded race as an omnipresent and central aspect of theorizing technology:

- The stakes are higher for people of color dealing with technology in front of other people.
- New media, like literacy, can be used as a form of violence.
- Scholars can learn from semiotic systems other than print based that are closer to the rhetoric [*sic*] structure of new media.
- Identity is information and behaves like information in digital systems.
- New Media doesn’t do us any good if it just replicates unjust power structures and is continued [*sic*] to be used to dehumanize folks.

In response, another participant, ARR (2008) quoted Walls to articulate an aspirational teaching philosophy that drew on his argument for the raced nature of technology:

“Folks are categorized, labeled, placed into groups, associated through language, media, and informatics in complex ways.” One of the main ways those associations are made within our society is through race/racist logic; therefore, “the stakes are higher for people of color dealing with technology in front of other people.” In knowing this, as a teacher, I must “understand how information and media does work [to] understand how identity and point of view is constructed” as a way to interrogate my own invisible assumptions that may guide classroom practices.

This exchange showed DMAC participants building on institute content and on each other’s responses to it in order to refine their ideas and practices. Walls went on to pursue his critique of the emancipatory potential of new media in his DMAC project, a visual collage/voiceover video that he later published in *Kairos*.¹³ His video questioned the extent to which racist, imperialist tropes like authenticity could be “disrupted, resisted, and remixed into demi-humorous arguments or a quasi-academic piece of new media” (Walls, 2008b), rather than simply recirculated as existing racist stereotypes and replicated as existing material inequalities. And if new media is used in these ways, Walls stated in impassioned tones, he would resist using them (2008b). Perhaps owing to the fast-paced and sarcastic tone of his mashup-manifesto (compared to the print articles discussed in Moss’s and Kinloch’s sessions), Walls embraced a more radical stance toward technology than the institute readings or in-class discussions did, demonstrating the potential participant texts have to reinterpret institute ideas and recirculate them critically into the field.

While Walls, ARR, and other DMAC 2008 participants considered race and technology in lengthy blog posts, DMAC 2014 participants engaged visually with access, design, and multimodality. Participants read Melanie Yergeau et al’s webtext “Multimodality in Motion: Disability & Kairotic Spaces” (2013), and discussed ableism in academia and elsewhere. Following the session, Selfe challenged participants: “can you integrate insights from Melanie’s talk into your DMAC discussions/projects/classes to help enact change? #dmac14” (2014a). In response, participants tweeted photos and observations throughout the day to catalog accessibility issues they noticed in light of the morning’s discussion, shown in Figure 3 below. These tweets suggest that the participants were seeing the world in new ways, noticing access barriers that were previously invisible to them.

6. Professional development at CIWIC/DMAC

The institute’s scholarly, critical orientation is also reflected in the professional development it provides. At CIWIC 1998 and CIWIC-AIC 2001, readings on the relationship between technology and race, class, gender, and sexuality shaped participants’ book reviews, teaching demonstrations, software critiques, and computer lab designs. These projects focused on preparing participants to build writing labs, teach effectively in them, and train others at their institutions to do so. Beginning in 2001, CIWIC-NM asked participants to use tools like Adobe Photoshop, Macromedia Director, and Macromedia Flash to create interactive, born-digital texts: a visual argument, a sequential argument, a non-linear project (2005 only), and a final project of their own design. This fast-paced assignment sequence pushed

¹³ For other examples of DMAC alumni developing their final projects into digital publications, see Lindemann & Smith (2008) and Omizo (2008). Alumni have also published their short Concept in 60 videos on multimodality: see Burns (2009) and Perry (2012).



Figure 3. DMAC, 2014 Participant photo-tweets responding to Yergeau’s session on access (Mathis, 2014 [left]; Parfitt, 2014a [middle]; andrewjaykinney, 2014 [right]).

participants to focus on their own (rather than students’) digital composing, marking an institute shift toward media production and research-oriented professional development. When the institute moved to Ohio State in 2006 and became DMAC, the new name signaled the central role participant-created media had come to play. DMAC followed CIWIC-AIC’s shift (begun in 2002) toward incorporating multimodal composing, featuring assignments that paired audio and video recorders with computers.¹⁴ As in CIWIC-NM, DMAC participants designed and produced a final project, called “Thinking about Multimodal Composition.”¹⁵ This assignment asked participants to create a born-digital multimedia text (using web authoring platforms like SophieBook, iBooks Author, WordPress, or Dreamweaver) that combined written content with other media assets to demonstrate the potential of multimodal texts (“Thinking about Multimodal Composition,” 2008).

In 2014, the final project shifted again to narrow its focus, asking participants to reflect on the process of producing an earlier institute assignment (a short video) to examine 1) the process of multimodal composing, and 2) their video’s use of multimodal rhetoric (“Final project,” 2014). This prompt paralleled the approach several institute alumni used to build publications around their institute projects by conducting meta-analyses of them (see Mondor & Rounsaville, 2008; Kimme Hea & Turnley, 2010; Lackey, 2013). The 2014 DMAC final project underscores the scholarly, as well as pedagogical, outcomes of institute work, encouraging participants to see their assignments as potentially publishable projects. Another aspect of recent DMAC curricula that highlights the institute’s growing attention to research-oriented professional development is the Graduate Workshop. The visiting scholars and journal editors who have lead this session since its inception in 2009 have used it to introduce participants to exemplary research in computers and composition and to discuss the opportunities and challenges inherent in digital scholarship.¹⁶ Participants’ enthusiastic response to a list of digital publishing venues Yergeau (2014) shared following the 2014 workshop suggested that attendees were taking up DMAC’s emphasis on digital publishing, gathering resources to produce their own digital scholarship.¹⁷ The fact that 21% of DMAC alumni compared to 9% of CIWIC alumni report publishing born-digital scholarship suggests that the changes in institute curriculum (along with other factors) may well be fostering multimodal scholarship.¹⁸

The institute also promotes digital scholarship by educating participants about the concerns, costs, benefits, and evaluation of digital scholarship, whether or not these alumni go on to publish digitally themselves. Numerous institute

¹⁴ Information about use of video in CIWIC-AIC beginning in 2002 from Cheryl Ball, Danielle DeVoss, Cindy Selfe, and Scott DeWitt, personal communication, August 18, 2014.

¹⁵ Although the name of the DMAC final project has changed during this time (called a “literacy documentary project” in 2006, “Making a Brief Case for Multimodal Composition” in 2007, and “Final Project” in 2013), the focus throughout is on using multiple media to make an argument that demonstrates the value of multimodality.

¹⁶ Graduate workshop leaders have included Kara Poe Alexander (2013), Cheryl Ball (2009, 2011), Kristine Blair (2009, 2011–2014), Joseph Harris (2010), Debra Journet (2010, 2012), Tony O’Keeffe (2012), and Melanie Yergeau (2013–2014).

¹⁷ Yergeau’s tweet (“Google doc list of digital publication venues. Pls add to lists! <http://t.co/W5RHEqEiG7> #dmac14” (2014)) was retweeted 13 times on the #dmac14 hashtag (by 4 attendees, 1 DMAC alumni, and 8 non-attendees) and favorited by 9 people (4 attendees, 1 DMAC alumni, and 4 non-attendees).

¹⁸ These percentages reflect the number of institute alumni who have provided professional information online, not the total number of institute attendees (see Note 6 for additional information on institute attendance numbers and professional document totals).

alumni are now tenured and senior faculty, responsible for assessing the work of colleagues applying for jobs, tenure, fellowships, and awards. These alumni can serve as the informed digital scholarship judges Braun calls for (2013, pp. 91–131) and share their knowledge with other senior colleagues, as Journet recommended (2007, pp. 116–117). As many as 27 journal editors have also attended the institute, where they had the opportunity to learn about the demands, standards, and significance of research on computers and composition. It's especially important to note that institute alumni edit/have edited publications that don't focus explicitly on technology like *College Composition and Communication*, *Composition Studies*, *The Writing Instructor*, *Southern Discourse*, and *Disability Studies Quarterly*, as well as field-specific publications like *Kairos* and *Computers and Composition*. Attending the institute helps editors—not just in computers and composition, but in other fields as well—evaluate the kinds of digital scholarship participants produce, helping to extend the reach of this type of work.

7. Conclusions

As I argue in this text, institute and participant documents illustrate Selfe's often-quoted people/teaching/technology hierarchy of concerns. This dictum doesn't seem to fully account, however, for the institute's increasing emphasis on participants' digital composing work in recent years. While this shift is certainly a "personal" concern insofar as it relates to participants' professional development, composing original texts also calls attendees to create new knowledge about digital composing, rhetoric, and pedagogy. The recent changes in DMAC's final project formalize this development by encouraging participants to look ahead to producing digital scholarship. Furthermore, social media conversations and attendees' publication records suggest that participants are taking up the institute's invitation to publish their knowledge-making texts. Just as the institute has long introduced newcomers to computers and composition through shared interests in pedagogy, its recent overt emphasis on research offers another avenue of entry. The final project—especially its most recent iteration as a meta-analysis of earlier institute assignments—encourages scholarship on learning to work with digital technologies, inviting participants to situate developmental DMAC experiences within rhetorical, semiotic, and institutional frameworks. A project like this positions newcomers to contribute to the field by building on existing work in computers and composition as represented, for example, by the critical theories of technology discussed by guest speakers.

Whether their projects are pedagogical or publication-oriented, creating multimodal digital texts at DMAC involves what Journet, Cheryl E. Ball, and Ryan Trauman (2012) called "the new work of composing," (re)defining what texts mean and how they work by negotiating the purposive, technical, and generic questions that digital texts pose for their creators. When participants use institute assignments in their teaching, they apply the embodied knowledge about affordances and processes of multimodal production they acquired at the institute, as Journet (2007) and O'Keeffe (2012) described. And when participants develop institute assignments into publications, that kind of knowledge-making goes public in the field, producing work like Walls' (2008b) video-collage, which plays with scholarly conventions and tone while engaging with critical theories of race, language, culture, and technology.

The institute's emphasis on knowledge-making not only through teaching but also especially through research suggests adding to and resituating Selfe's people→teaching→technology dictum to better account for the digital texts participants create. Figure 4 proposes knowledge-making as a context within which to situate institute work and adds to Selfe's description of the institute's mission. Digital composing functions as the context within which the institute's people/teaching/technology priorities play out, describing the conceptual and applied work participants do throughout the institute. And the emphasis recent DMACs place on digital publishing suggests that research, as well as teaching, should be represented among the institute's primary concerns. People still come first, reflected in the community the institute cultivates; its attention to participants' professional needs; and the prominent role played by critical theories of technology informed by embodied lenses of race, class, gender, and access. Part of this attention to people, however, adds research to Selfe's maxim as an increasingly important professional concern for institute attendees (and academics generally) of all levels. I place teaching and research side-by-side in Figure 4 both to indicate the frequent overlap between teaching and research in computers and composition scholarship (reflecting the field's history of classroom-based and pedagogically-oriented work) and to illustrate the prominence of these two topics. And while technology per se ranks below these concerns, the rhetorical, semiotic, and ethical responsibilities that apply to digital composing are predicated on (balanced on) technical knowledge and choices. These technical decisions are guided by the composing task and commitments to persons and pedagogy/scholarship, however, and so technology remains a tertiary consideration.

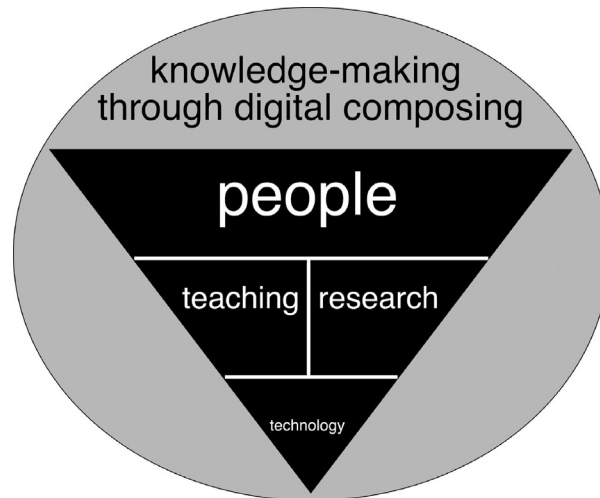


Figure 4. Situating institute priorities within the context of knowledge-making through digital composing.

Although the institute continues to prioritize people and teaching, it increasingly approaches these concerns through digital composing, folding in research as a complement to the pedagogical and administrative professional development CIWIC/DMAC has long provided. As Perry's (qtd. in Hagood, 2012) epigraph suggested, this kind of comprehensive professional development has become an increasingly important part of "doing DMAC," and the digital production work participants do, whether as a teaching or research activity, plays a central role in fostering attendees' participation both in the field of computers and composition and in their own institutions.

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