

- **Graham M. Jones**
Anthropology Program
Massachusetts Institute of Technology
gmj@mit.edu
- **Beth Semel**
History, Anthropology, and Science, Technology, and Society Program
Massachusetts Institute of Technology
bsemel@mit.edu
- **Audrey Le**
Anthropology, Teachers College
Columbia University
al2812@tc.columbia.edu

“There’s no rules. It’s hackathon.”: Negotiating Commitment in a Context of Volatile Sociality

How do people negotiate commitments to engaging in joint activity while at the same time anticipating and managing the inherent risks of collaboration? We explore this question through the ethnographic example of a hackathon, a collaborative software-design competition. We focus specifically on the earliest and, in many ways, most uncertain phase of collaboration, in which commitment and activity simultaneously emerge: team formation. We analyze mercurial allegiances in terms of a technoliberal participation ideology closely associated with the mores of the digital economy, which paradoxically emphasizes intensive project-based collaboration but limited interpersonal responsibility. We examine the verbal and nonverbal resources (such as stance-taking, politeness, reported speech, humor, and gesture) that prospective teammates use to modulate expressions of commitment, and the ways in which they pursue self-interested projects while maintaining social relatedness in order to accomplish joint activity in a context of social volatility. [commitment, joint activity, participation, collaboration, ideology]

Introduction

Herbert Clark (2006:126) identifies “*joint activities* . . . in which two or more participants coordinate with each other to reach what they take to be a common set of goals” as a quintessential feature of human sociality. Such activities, he asserts, “are managed through *joint commitments*” to a shared project and to particular tasks within it, which participants negotiate through a variety of verbal and nonverbal strategies. Clark shows that joint commitments to working together (and to working in certain ways) do not necessarily precede joint activity, but rather emerge incrementally and hierarchically as collaborative interaction unfolds. “People’s commitments to each other accumulate . . . the further they get into

any joint activity" (137), but that accumulation entails risks such as reduced autonomy, exploitative relationships, or overcommitment to problematic endeavors (139–140). Given these risks, how and why do people make the initial commitments that allow them to *get into* joint activity in the first place?

In this article, we show how people negotiate initial commitments to engaging in joint activity while at the same time anticipating and managing the inherent risks. These moments of *inceptive* joint commitment, in which people talk about the prospects of collaboration while calculating the benefits and risks of working together, are particularly rich and complex moments of sociality, worthy in their own right of the kind of sustained microanalysis that Clark gives to joint activity more broadly. In some sense, as Clark suggests, people making joint commitments face problems that inhere in any cooperative undertaking. But we also want to propose that the specific type of joint activity that we analyze is sociohistorically situated in ways that impose particular opportunities and constraints on participants, and that culturally inflect the types of joint commitments that they negotiate. In order to do this, we focus on elements of participation that emerge at the intersection of interpersonal "participation frameworks" (Goodwin and Goodwin 2004) and overarching "ideologies of participation" (Arnold 2012) that impinge on the organizational parameters of joint activity.

The examples that we analyze are drawn from the earliest stages of a software-design competition characterized by its organizers as a "hackathon." This umbrella term—a portmanteau of "hack" (computer programmers' slang for exploratory software design) and "marathon"—encompasses an ever-expanding category of event in which technical experts converge on a predetermined location, forge temporary partnerships, and work intensively together for a limited period of time to solve technical, social, or sociotechnical problems. When they emerged in the late 1990s, these events were strictly limited to the computer-hacker subculture and focused exclusively on writing software. Noting that the 1,500 or so hackathons scheduled for 2015 alone include events devoted to everything from social demography in Australia to water conservation in India and ticket sales at Wimbledon, as well as "television technologies, life sciences and political causes," a journalist asserts that "the term these days is used anywhere people congregate with the expectation of getting something vaguely machine-oriented done in one big room" (Lewis-Kraus 2015:44). We suggest that the recent proliferation of hackathons also reflects the ascendancy of computer programming as both an increasingly influential subcultural ethos and a field of expertise on which other professions increasingly rely.

A hackathon like the one that we analyze makes a fascinating case study in joint activity. Drawn by the theme of a particular event, participants bring skills and interests relevant to the topic at hand, but they mostly come alone, seeking a project to work on and/or collaborators with whom to work. They must find both quickly at the beginning of the first day of the event, so as to waste as little time possible in getting to work. In this article, we focus specifically on this earliest and, in many ways, most uncertain phase of collaboration—team formation—the phase in which commitment and activity simultaneously emerge. Far from being a clearly delimited process, team formation blurs with subsequent phases of joint activity, namely the design and execution of a finished technological object. On one hand, because the precise nature of the collaborative project to be undertaken emerges from early conversations between prospective teammates, team formation is itself inevitably part of the design process. On the other hand, because commitments are perpetually open to renegotiation, members may still join or leave a team after the design process has nominally begun.

In the following section, we describe the hackathon event genre as a mode of technical and cultural production. We discuss the way in which the specific hackathon on which we focus reflects dynamics endemic to the particular domain that it targets for problem-solving: journalism. We then go on to explore how event participants navigate competing values of independence and interdependence in the relatively egalitarian environment of competitive collaboration that the hackathon presents. Drawing on videotaped interactions unfolding across the two-day event, but focusing

particularly on the process of team formation at the beginning of the first day, we analyze how participants use verbal and nonverbal communicative resources both to create and to abrogate alliances, while simultaneously gathering information, assessing each other's skills, and refining their ideas. We show how a range of communicative procedures—including stance-taking, politeness strategies, reported speech, humor, and gesture—function to mediate the uncertainties of volatile, ambiguous sociality and achieve the kinds of joint commitments that will ultimately be necessary for collaborative joint activity.

Hackathons as Activity Domain

Laypeople generally associate the term “hacking” with activities involving computers: malicious breaches of Internet security or benign practices of writing software code. In the argot of engineers, however, “hacking” refers to any process of figuring out how a technical system works so that it can be made to perform previously unintended and unforeseen functions. Thus, MIT students refer to their elaborate technical pranks—for instance, placing a fire engine on top of the university's hallowed dome in the darkness of night—as “hacks” (see Peterson 2003); amateur biologists working in DIY (do-it-yourself) labs dub themselves “biohackers” (Roosth 2010); online communities of “lifehackers” (Potts 2010) share ingenious strategies for self-betterment through information; and a worldwide network of “hackerspaces . . . expand ideas and practices of the web generation into hardware and manufacturing” (Lindtner 2014:149). Although hackathons originated among computer programmers, the event genre now reflects this more ecumenical notion of “hacking.”

Today, hackathon sponsors range from corporations to universities, government agencies, and nonprofit organizations. Organizers predetermine the types of problems to be solved and/or the tools, such as particular software platforms, that they will make available on site to solve those problems. They then promote their events online, targeting specific “organized publics” (Fish et al. 2011:4) made up of persons connected via particular social or professional networks, the demographics of which are reflected in the resulting events. Participants register online, typically as individuals, though some come in groups with preconceived projects; typical motivations for participating include exchanging knowledge, developing skills, and forming community (Briscoe and Mulligan 2014). Following a more or less recurrent single- or multiday sequence, they pitch ideas to each other, form teams, conceptualize and execute projects—or “hacks”—and then present finished products to judges. Prizes may be monetary or purely symbolic. When competitive teams are formed on site (as in the case to be considered here), hackathons require competitors to strategically forge working relationships based on the perceived merit of ideas and talent of individual participants. Strict time limits make them a personal and interpersonal proving ground, and a creative crucible in which technical artifacts can be rapidly iterated in response to real-world problems or market-driven demands—even if, as one journalist claims, it is an “open secret” that “nothing useful is ever created at a hackathon” (Broussard 2015).

Hackathons have become deeply enmeshed in the operations of Silicon Valley corporations, offering corporate sponsors publicity, intellectual property, investment opportunities, and, perhaps most important, occasions to recruit personnel (Leckart 2015). Given the widespread resonance of digital technology as a panacea for all manner of social ills and the currency of hacks and hacking more generally, it is perhaps not surprising that hackathons have also proliferated outside of Silicon Valley and beyond programmer subcultures. Events like the hackathon that we analyze here take an interdisciplinary approach, bringing content experts (professionals, activists, civic leaders, etc.) in particular areas together with web developers (back-end programmers and front-end interface designers) who lack domain-specific knowledge to solve problems collaboratively through digital technology.

A number of popular authors refer in passing to hackathons as rituals (e.g., Lewis-Kraus 2015:44; Milian 2012). Fattal (2012:939n2) suggests that the ritual elaboration surrounding the bimonthly hackathons at Facebook corporate headquarters would provide “fertile ground for an anthropologist to explore.” We take the provocation to think of these events as rituals seriously. Particularly if “hackathons . . . are ingrained in the ethos of coding [i.e., computer programming]” (Leckart 2012:109), what kinds of value and meaning might their “spread beyond the conventional tech world” enact? Considered from an ethnological perspective, we propose, hackathons are not just occasions for technical work but also ritual encounters that express ideological tenets of the digital economy, such as the primacy of individual merit over credentialed competence or institutional affiliation.

Among the earliest anthropologists to study computer programmers, Helmreich (1998:50–51) writes that the first-wave hacker culture of the 1980s—“a culture of computer aficionados obsessed with building and understanding unruly systems”—combined the countercultural ethos of the 1960s with “ideas important in mainstream American political culture: individualism, the realization of democracy through electricity . . ., and self-empowerment through mastering new technologies.” Drawing on Turner’s (2006) historiography of “digital utopianism,” Malaby (2009:16) finds a similar ideology of “technoliberalism” among Silicon Valley’s digital entrepreneurs: a “combination of distrust of vertical authority, faith in technology, and faith in the legitimacy of emergent effects.” Focusing on the open-source software movement, Coleman (2013:17) likewise describes a “hacker ethic” based on “a commitment to information freedom, a mistrust of authority, a heightened dedication to meritocracy, and the firm belief that computers can be the basis for beauty and a better world.”

As ritual enactments of a moral viewpoint, hackathons may mediate this hacker ethic and technoliberal ideology beyond techie subcultures. For instance, analyzing a design and development hackathon in Delhi, Irani (2015:800–801) asserts that such events do not just generate technological “demos,” but “more powerfully produce entrepreneurial subjects” and “[rehearse] an *entrepreneurial citizenship* celebrated in transnational cultures that orient toward Silicon Valley for models of social change.” These ideologies can have far-reaching political implications. Irani notes that the aura of “participatory production” (813) belies numerous exclusions: in order to quickly build a demo, “the people coming together [have] to be sufficiently similar, sufficiently flexible, and sufficiently few” (811). The temporal constraints make participating unrealistic for anyone with family obligations, and demand a focus on “building software” rather than “building coalitions . . . and building trust” with the disempowered people that software is supposed to help.

Read in this light, the proliferation of hackathons makes sense in a broader cultural context of what Boyer (2013:134–136) identifies as “digital liberalism,” the product of a “codeterminate dynamic” between “neoliberal political imaginaries [that] assume entrepreneurial and consumer subjects who are able to circulate effortlessly in zones of transaction” and “the personalized interfaces and lateral and mobile messaging capabilities of digital media [that] enhance their experiential grounding and conceptual intuitiveness.” As a format for organizing technical labor, hackathons are perhaps the perfect expression of this zeitgeist—not only in their radical responsiveness, hyperflexibility, and self-interested agonism, but also in their liberatory, utopian promise of unlocking the creative potential of freely associating, technologically enhanced individuals.

“Hacking Journalism”

The hackathon on which we focus is dedicated precisely to the world of digital newsmaking that Boyer (2013) himself so forcefully evokes in *The Life Informatic*. Boyer’s ethnography finds traditional print journalists in Germany struggling to adapt in a professional climate where “reporting represents a shrinking proportion of news activity . . . relative to monitoring and repurposing news content already in

circulation" (3). Rather than interviewing sources or covering a beat, these journalists now spend their days seated in front of computer screens, following streams of information and trending topics in social media. Boyer describes how these media professionals seek "to redefine their sense of agency, expertise, and authority given the new ecology of forces that have transformed and that are continuing to transform their work environments and practices."

The peculiar conjuncture of new communications technologies and the culture of postindustrial consumerism also shapes these trends. According to Boyer (2013:4), the model of newsmaking that seeks

to expertly gather and select important information and to authoritatively disseminate it "in the public interest" . . . has slowly ceded authority to a . . . model that engages the reader or viewer less as a public citizen and more as an individual consumer, with individual tastes and preferences in news information to which news organizations should cater. . . . The neoliberal model positions journalism instead as a particular kind of informational service labor on behalf of sovereign consumers, perhaps involving some specialized expertise in the filtration and "curation" of relevant messages, but nonetheless robbed of much of its authority to define what issues and events are newsworthy and why.

We quote this passage at length because it resonates deeply with the objectives of the hackathon on which we focus here, as well as with many of the projects that it spawned. Co-organized by journalists and new-media developers, "Hacking Journalism" took place at the Massachusetts Institute of Technology (MIT) on June 7–8, 2014. In the context of the broader trends that Boyer describes, it reflected an effort by journalists to assert relevance by cultivating strategic allegiances with computer programmers and web developers in the hopes of creating new tools for content production and distribution. Its mission statement proclaimed: "There is so much opportunity for new products in the media and publishing space, but figuring out what will succeed is no easy task. This hackathon will bring together journalists, developers, and designers to build out ideas to reshape the future of news" (Hacking Journalism 2014). Several digital-media companies agreed to provide access to their APIs (application program interfaces), allowing participants to create programs capable of accessing their platforms' online content. Some companies had representatives on site and even held workshops, giving participants the kinds of skill-building opportunities that attract many to hackathons.

We estimate that the event drew a total of 64 participants (plus the five organizers). We were able to collect demographic information about 45. Of these 45, most came from the Boston area, but 18% traveled from New York (a few came from as far as London to take part); 27% had attended at least one hackathon before (some had attended numerous hacking events); 29% were female; after Whites, East Asians made up the second largest ethnic group, at 29%. Except for those who were students, most participants were young professionals in their 20s and 30s who had substantial experience in news or digital media, though only 20% identified as "journalists" in their professional profiles (excluding media-making professions such as video production). This substantial overlap of experience and the convergence of interests resulting from participant self-selection unquestionably facilitated collaboration between people who were mostly meeting each other for the first time; in that sense, the act of attending itself signified a general commitment to "reshaping the future of news."

We took a mixed-methods approach to studying the event, with one researcher carrying out participant observation and follow-up interviews while another circulated through the event with a video camera, recording the roughly nine hours of footage that constitute our primary object of analysis in this article. The event occurred over a weekend on the second floor of MIT's Media Lab, an open area with ample sunlight and glass walls. On Saturday morning, following the organizers' opening remarks, journalists and developers gave "lightning talks," brief presentations on topics related to digital-media production meant to inspire and motivate participants. After these talks, participants who were so inclined lined up behind the

microphone and individually pitched ideas for potential projects, or “hacks.” At this point, participants fanned out in the cavernous space in pursuit of potential collaborators. During the following hour or so, they would rove around, gathering information, offering advice, and assessing each other’s ideas and abilities before eventually committing to a project.

There were no restrictions on who could work with whom, though we observed that many participants soon realized that, because of the uneven spread of expertise, it would be beneficial to form teams that included both journalists and people with programming backgrounds. As people clustered in increasingly stable groups, they went to sit together at the couches and fold-up tables that lined the periphery of the second floor, or moved up to the quieter seating areas on the third floor. Other than refreshments, the only supplies available were whiteboards, easels, and markers. Ultimately, conversations segued into design work as people plugged in their laptops and undertook planning and executing their hacks. As we describe in more detail below, even as people seemed to be forming stable partnerships, levels of commitment sometimes remained difficult for participants themselves to gauge.

Space limitations preclude us from describing subsequent phases of teamwork in any detail, but we briefly note that, for the teams on which we focused, hacking as a joint activity involved significant elements of multimodal interaction (Keating and Sunakawa 2010) and socially distributed cognition (Hutchins 1993), laminated onto an interdisciplinary division of labor. As teammates worked together, they had to allocate tasks to be worked on independently, while also coordinating their efforts in a collaborative process. Participants were physically copresent and attending to each other’s verbal and nonverbal signals (gesture, gaze, proxemics, etc.), but they were also simultaneously interacting with each other via a variety of digital media. In ways comparable to those described by Flor (1998), team members participated in the hack through digital workspaces that were at least partially shared. At any given moment, they had only partial and differential knowledge of the overall production process—because of the limited scope of their expertise, because of the specificity of their role in the complex division of labor, and/or because of the limitations on joint attention when work was mediated by displays that were not accessible in an immediate way to all involved. Because of these logistical challenges, joint commitment was essential to joint activity.

The event concluded late Sunday afternoon with participants presenting their finished products, which were awarded prizes based on audience applause. As forms of expressive culture, the 16 finished projects that emerged from Hacking Journalism reflected the tectonic shifts in news production that Boyer identifies. One of the teams on which we focus produced a hack that is unambiguously enmeshed with the reader-as-consumer and journalist-as-curator paradigm that Boyer describes—and, by extension, with lifehacking or digital self-tracking. Drawing on the conceptual metaphor of a comestible diet that can be more or less nutritious, this team aspired to provide an “app” (software application) that tracks the news that users consult and categorizes it on the model of food groups. Another team developed a comparable app that invites users to “consume and rate the news based on your mood . . . to balance your diet.” Several hacks aspired to make news personally relevant to individual readers/consumers, for instance, by using geolocation data to display news based on location, or by incentivizing readers to contribute user-generated content through games. Other hacks focused on digitally empowering journalists themselves by enhancing traditional journalistic activities such as identifying sources, reporting stories, or assessing a story’s impact through data-driven analytics.

Technoliberal Participation

“Participation” is a central theoretical preoccupation in linguistic anthropology, defined by Goodwin and Goodwin (2004:222) as “actions demonstrating forms of involvement performed by parties within evolving structures of talk.” They analyze it in terms of “participation frameworks which invoke a domain of

temporally unfolding embodied action through which multiple participants build in concert with each other the events that constitute their lifeworld" (240). In addition to its relevance for linguistic anthropologists, "participation," along with "collaboration" (Riles 2013), is also a buzzword of the digital economy, reflected in self-proclaimed "participatory" organizational strategies like crowdsourcing (Ekbia and Nardi 2014), peer production (Kreiss et al. 2011), and, indeed, hackathons (Irani 2015). We ask how the associated "ideologies of participation" (Arnold 2012) and the types of subjectivities that they presuppose intersect with participation frameworks that emerge at an event like "Hacking Journalism."

In the following sections, we examine the situated accomplishment of participation frameworks during the initial negotiations of commitment surrounding team formation. In this setting, the conditions for cooperative partnership must be achieved within a broader cultural frame of technoliberalism that privileges freedom of association over lasting social obligations and is inscribed in the organizational parameters of the hackathon itself. Synthesizing cultural anthropological research on the digital economy with linguistic anthropological research on the situated production of joint activity, we view the resulting interactions in light of *technoliberal participation frameworks* that paradoxically emphasize intensive project-based collaboration but limited interpersonal responsibility.

The process of team formation that we have chosen to focus on entails considerable interactional complexity. Those who propose projects need to convey sufficient enthusiasm to recruit personnel with requisite skills, but they often also need to gather information about the feasibility of their proposals from those same people, who possess specialist knowledge. Because of the collaborative nature of hacking at this type of event, they must also balance expressions of leadership and of willingness to collaborate—a situation that parallels "the dialectical tension *between* vertical and horizontal kinds of authority" that Malaby (2009:64) finds in a technoliberal Silicon Valley corporation that explicitly denies "the role or power of vertical decision making." Some participants must be willing to abandon their ideas altogether. Those in search of a team are also faced with competing motivations: either to commit themselves to a particular project before desirable teams are overpopulated, or to defer commitment until they find the best possible project. We explore how teams both take shape and splinter in the initial stages of team formation as participants use verbal and nonverbal resources to modulate expressions of commitment, pursuing self-interested projects while maintaining social relatedness.

Hedging Commitment

In the process of team formation, those with ideas for hacks have repeated opportunities to pitch their projects to potential collaborators. These conversations also occasion feedback in the form of positive or negative assessments, suggestions, or criticisms. In this context, journalists approach web developers both as potential teammates and as experts who can give input on the feasibility of an idea—in other words, whether or not it can actually be built, taking into consideration the limitations and constraints of programming and web design as well as the time constraints of the event itself. Developers also approach journalists as experts with insight into the relevance or applicability of their technological ideas (see Example 6).

Indeed, because the conception of a project is emergent in the processes of team formation as well as product design, conversations between prospective teammates are also occasions for the kind of "collaborative imagining" that Murphy (2005:114) defines as "a social, jointly produced activity in which the objects of thought are actually manipulated in interaction." The first team on which we focus developed out of an observation by a journalist, Jen, that the decline of traditional media means that "we're going to lose a lot of editorial judgment," making it harder for consumers to get "a balanced news diet." Jen's idea for an application to help readers assess the quality of their own media intake, which she introduced in a plenary pitch, initially

attracted a graphic designer, Kat, and another journalist, Mia. (All names are pseudonyms.) The three then set out to recruit web developers who could build it. In total, we logged six subsequent sequences in which the initial three members pitched their idea to people with expertise in web development.

In the following representative example (Example 1), Mia pitches the idea on behalf of the nascent team, addressing two developers, Tim and Eli, while roughly four other unidentified participants listen in. As she speaks, Jen and Kat nod along, looking back and forth between Mia and the other listeners. Here, as in following examples, we parenthetically describe analytically relevant gestures within the transcript and provide selected illustrations.

Example 1

- 1 Mia U:m so- so what we're trying to
 2 basically create- we just gave
 3 them this spiel is- um, probably
 4 using like the ((LH so-so
 5 gesture)) Twitter API::? or,
 6 whatever else (.7) Twitter's
 7 offering ((LH circles vaguely))-
 8 we're trying to get briefed on it
 9 later, um (.7) kind of like a
 10 Weight Watchers Fitbit-type
 11 o:::f ((balancing gesture)) like
 12 tracker? for what you have
 13 consumed? like filtered by topic
 14 so that at the end of every day
 15 you can sort of see like a
 16 visualized (.8) roundup ((circle
 17 gesture)) of like ((counting on
 18 fingers)) how much and what kind
 19 of content you've consumed? to
 20 become aware of it? And then
 21 perhaps change your habits. And
 22 like that should be (.8)
 23 searchable after the fact if
 24 you're like, "I know that I read
 25 this and I know that I shared it
 26 on Twitter and it had to do with
 27 this topic, why can't I find it
 28 without scrolling through my
 29 entire newsfeed?" And compare it
 30 to (like other) (.5)
 31 [(users)
 32 Eli [Did you wanna like a- a web app
 33 or a- a mobile a:pp?
 34 Mia I mean, we're open. I th-
 35 whatever is like the most
 36 feasible thing to do?



Fig. A Left hand circles vaguely



Fig. B Balance gesture, hands moving up and down



Fig. C Circle gesture with both hands

We begin by noting that Mia's presentation employs a significant number of hedging strategies, verbal features of stance-taking that appear to mitigate the strength of epistemic conviction or commitment to a proposition (Strauss 2004:175–176). These include repeated use of the discourse markers *like* (lines 1.4, 9, 11, 13, 15, 17, 22, 30, 35), *kind of* (line 1.9), and *sort of* (line 1.15); epistemic modal adverbs such as *probably* (line 1.3) and *perhaps* (line 1.21); rising/questioning intonation throughout (e.g., lines 1.5, 12, 13, 19, 20); and accompanying gestures that convey vagueness or approximation, such as the so-so (line 1.4), vague circling (line 1.7; Fig. A), and balancing (line 1.11; Fig. B) hand motions. Mia's hedging in a pitch such as this one probably indexes some real uncertainty about the form of the final product. But because recruiting members entails expressing commitment to a compelling idea, we suggest that hedging is also a strategy of balancing conviction with openness to others' input, as her final turn in this example suggests ("we're open").

Analyzing the written correspondence of collaborators on a scientific project, Myers (1991) asserts that verbal hedges are not just expressions of epistemic uncertainty, but also politeness phenomena that allow parties to negotiate a working relationship in spite of differences in social status and expertise (as, for instance, between a journalist and a web developer). Hedging therefore might be a way for Mia to indicate that she is herself not firmly committed to the conceptual framework of her still-hypothetical project. She seems to recognize that the concept of the project will be determined according to what is a "feasible thing to do" (line 1.36), be it a web-based app or a mobile app. In this regard, Eli's input is vital: his expertise may help Mia realize the project that she already has in mind, but his insight into what is possible to build may contribute to fleshing out or reshaping the idea itself.

Mia's pitch conveys openness to collaboration while using gesture and constructed dialogue to make the concept of the hack vividly compelling. Several of her gestures appear to function as what Hutchins (2010:445) terms "somatic anchors for conceptual blends," particularly when considered processually. For instance, the circular gesture that she makes when saying "roundup" (lines 1.16–17; Fig. C) suggests a user interface in the form of a pie chart, an implicit design feature that will become increasingly explicit as the hack develops, in a process similar to Murphy's (2012) account of gestural "transduction" in design. Her *finger-counting* gesture (lines 1.17–18) reinforces the proposition that news consumption is quantifiable and classifiable according to qualitative categories. In this regard, the *balancing* gesture (line 1.11; Fig. B) that accompanies Mia's reference to Weight Watchers and Fitbit (self-tracking websites for dieters) appears polysemous: elsewhere in our data, Mia and others use the same gesture both as an expression of uncertainty in choosing between alternatives and as a somatic anchor for the conceptual metaphor of reading news as consuming a more or less balanced diet. Adding to the pitch's vividness, Mia uses second-person hypothetical reported speech (Jones and Schieffelin 2009:90–93) in lines 1.24–29 to dramatize the type of everyday aggravation that the app's search feature would help solve ("you're like 'I know that I read this . . .'").

As people with ideas attempt to enlist others in their hacks, we repeatedly observe the recipients of pitches express interest but defer commitment. Such deferral could be a politeness strategy for avoiding offense when declining an invitation, a way of keeping possibilities open while continuing to "play the field," or both. In the following example (Example 2), Jen, Kat, and Mia attempt to enlist Ned, a web developer. They have been discussing the initial idea among themselves while Ned listens in from a slight distance. In the opening turn of the following example, Mia turns to Ned, drawing him into the conversation.

Example 2

- 1 Mia ((to Ned)) Are you a- what's
- 2 your background?
- 3 (4)

- 4 Ned Uh I'm actually mainly a web
 5 developer. So I u:h I'm orig-
 6 I'm starting to get into more
 7 web development? but I'm (). Um
 8 I wa- I was just walking around
 9 the whole ()- I think uh
 10 there's so many interesting
 11 ideas already=
 12 Kat =Ye[ah
 13 Ned [And this is actually a
 14 really cool one
 15 (.9)
 16 Kat ((nods)) I mean do you see a
 17 potential like (.8) web (.2)
 18 app? of this instead of a maybe
 19 a mobile app?
 20 Mia I mean you could do both, right?
 21 ((looks from Kat to Ned))
 22 Ned It could- It could easily be
 23 like a uh like uh Chrome
 24 extension or you know like one
 25 of those? where like you click
 26 on the article but it could
 27 [also
 28 Kat [Because- because maybe that's a
 29 short term
 30 Ned Yeah. But it could also u::m be
 31 like like a phone app u::m.
 32 Because most of the interface is
 33 just the interaction with it and
 34 then the- the app is the
 35 display, right?

In answering Mia's question about his background, Ned balances between engagement and restraint. He describes what he is doing as "just walking around" (line 2.8), as if already guarding against possible invitations to commit. He provides anticipatory grounding for avoiding commitment with the observation that "there's so many interesting ideas already" (lines 2.10–11), but adds a particularly favorable assessment of Jen, Kat, and Mia's idea (lines 2.13–14). His use of *actually* ("this is actually a really cool one") may be read in light of the association of this particular discourse marker with unexpectedness (Smith and Jucker 2000): after a potentially unflattering remark implying how hard it is to distinguish among "so many interesting ideas," Ned offers the complimentary qualification that this particular hack is "a really cool one."

In what could be seen as both a pre-invitation (Clayman 2002:238) and an enlistment of Ned in the process of collaborative imagining, Kat then asks what he, as a web developer, thinks would be the most viable way to execute the hack (lines 2.16–19). After they discuss the feasibility of both a web app and a mobile app (lines 2.20–35, and additional turns not reproduced here), Kat invites him to join the team in the following exchange (Example 2A).

Example 2A

- 1 Kat Would you be interested in (.7)
 2 [() in joining our team?
 3 Ned [I:- I- I- I'm- I'm ((looks
 4 away)) re[fusing=
 5 Mia [shopping.
 6 Ned =to commit [yet
 7 Kat [Yeah [alright
 8 Mia [Yeah
 9 Ned But I- I'm definitely interested
 10 Kat [[Okay
 11 Ned [[I'm most definitely interested
 12 Kat Keep us in mind ((thumbs up))
 13 Ned Yeah
 14 Mia ((to Jen)) Let's maybe chat with
 15 some people who know how to make
 16 things @@@
 17 Kat ((to Ned)) Yea@h cause that's
 18 the thing, we've got ideas we
 19 just don't know how to make them

Ned's response ("I'm refusing to commit") is clearly a dispreferred move (Clayman 2002:233–234), marked by stammering and the embarrassed gesture of turning away. Interestingly, Ned uses a speech-act verb to explicitly label what he is doing as a refusal. He offers a mitigating (but ambiguous) expression of "interest" (lines 2A.9, 11), which could refer either to the idea for a hack or to the prospect of joining the team, emphasized through both repetition and the boosters *definitely* (line 2A.9) and *most definitely* (line 2A.11). He thereby defers commitment to an unspecified future.

In the concluding turns of Example 2A, Mia and Kat reiterate a crucial social distinction to which we have alluded in this section, differentiating themselves as people who have "got ideas" based on domain-specific knowledge about journalism from people who "know how to make" things, i.e., web developers. This distinction—which may reflect Boyer's account of the deskilling of journalism—is inscribed in the organization of the hackathon itself: participants chose nametags that identified them as either journalists or developers. In the process of team formation, these occupational identities map onto what Ingold (2013:59) calls the "distinction of fundamental ontological import . . . between intellectual conception and mechanical execution," with journalists seeking to enlist the mechanical work of developers (as in this example) and developers seeking to enlist the intellectual work of journalists (as in Examples 6–6B). Nevertheless, this conversation (along with Example 1), in which the developer is clearly implicated in the conceptualization of the hack (through collaborative imagining), supports Ingold's observation that distinctions between ideation and fabrication inevitably break down in the "messy practices" of creation. Journalists themselves repeatedly acknowledge the pivotal role that developers and designers play in conceptualizing a feasible project and, in subsequent phases of the design process not analyzed here, defer to the opinions of these technical experts.

Displaying Commitment

In the previous section, we showed how hackathon participants use verbal resources to hedge commitments, displaying to each other both openness to collaboration and reluctance to commit. Because of the uncertainties about commitment to collaborative

undertakings in emergent technoliberal participant frameworks, when participants do commit to a project, overt displays of joint commitment seemed to play a vital role in reassuring teammates of shared investment in joint activity. Shortly after the disappointing attempt to recruit the developer in Example 2, and before meeting with a tech-company sponsor, Jen, Kat, and Mia have the following exchange (Example 3).

Example 3

- 1 Kat .hhh um ((covers mouth)) (1.0) I
2 like this
- 3 Mia This is awesome, I'm like so
4 glad you guys are getting
5 excited about this? Like
6 [I like love it
- 7 Jen [Like when we were talking I was
8 like "yes." And then I was just
9 like "oh" and like I also like
10 for one thing I mean I use
11 Twitter all day long everyday.
12 That said, there isn't like this
13 like element of curation? or
14 like not curation- that's not
15 the right word, but of editorial
16 judgment in it
- 17 Kat Yes[:s
18 [Cause you can just read
19 whatever you want ((others
20 nodding)) and the- I like the
21 idea of being personally
22 accountable for what you're
23 reading and making better
24 choices too.
- 25 Kat Yeah. ((smiling, rocking side to
26 side excitedly))
- 27 Jen It's kind [of like
28 [And like just having
29 a personal history of like you
30 know of you know- of what- why
31 you're- what you're reading and
32 why you're reading it, where
33 you're finding it. Just to- I
34 mean we- I feel like one of the
35 problems with Twitter? and just
36 like, with just this ((miming))
37 click-share click-share click-
38 share is that a week later you
39 don't remember what it is
40 [that you=
41 Kat [right

- 42 Mia =read [You're like "I thi:nk=
 43 Kat [There's no permanence
 44 Mia =there's this thing that I read,
 45 I don't remember [what this was"
 46 Kat ["I read a
 47 headline onc:e ((hands to
 48 forehead))"
 49 Mia Yeah=
 50 Jen =And you're scrolling through
 51 you're like, "ok, that must have
 52 been like twenty, thirty tweets
 53 ago"
 54 Mia Right
 55 Jen You're like "where was it?"
 56 Mia @@@

After a minor setback, the three initial teammates reaffirm their enthusiasm for their idea. Kat begins with a positive assessment ("I like this"), which Mia echoes ("This is awesome . . . I love this"), enacting solidarity through agreement (Clayman 2002) and the construction of "shared stance" (Du Bois 2007:115).

In a fascinating turn, Jen then expresses her positive stance toward the project by recollecting her own inner experience of positively assessing the project (to herself) during a previous conversation: "Like when we were talking I was just like 'yes.' And then I was just like 'oh' " (lines 3.7–9). Jen uses quotative *like* to demonstratively perform what she was thinking during a previous conversation (presumably during Mia's pitch in Example 2, which shortly preceded) in the form of reported speech (Jones and Schieffelin 2009:93–94). In subsequent turns, this quotative form plays an additional role in constituting shared stance. Mia says that a problem with the way news stories circulate on social networks "is that a week later you don't remember what it is that you read" (lines 3.38–42). She dramatizes this point with hypothetical reported speech: "You're like 'I think there's this thing that I read, I don't remember what it was' " (lines 3.42–45). Kat picks up on this dramatic enactment of forgetting a citation, inserting a performance of her own into Mia's quotative frame without enunciating an additional quotative: " 'I read a headline once' " (lines 3.46–48). Jen, in turn further embellishes this dramatization of forgetting, opening her own quotative frame: "you're like 'ok, that must have been like twenty, thirty tweets ago" (lines 3.51–53) and "You're like 'where was it?' " (line 3.55). As with the expression of joint alignment through complementary assessments, these improvised verbal vignettes—comparable to Murphy's (2011:248) "embedded skits"—serve as enactments of intersubjectivity and also provide a justification for the hack itself vis-à-vis an experience of forgetting that, the teammates establish, they have in common.

As Jen, Kat, and Mia go on to successfully recruit three web developers, additional opportunities for displaying solidary/commitment inevitably arise. In the following sequence, the three original teammates pitch their idea with what appears to be six people gathered in a loose circle around them. Eventually, most of the listeners straggle away without comment, except for two developers who continue the conversation. Mia and Jen invite the developers to join the team, with Mia even suggesting an excuse for them to avoid committing ("unless you're like shopping"). In the exchanges below (Example 4), one of the developers, Tim (Fig. D), takes a decisive step forward (Fig. E). By tightening a smaller circle of speakers just as a larger circle is disbanding, Tim expresses solidarity through words as well as proxemics.

Example 4

1 Mia Yeah, and if you- if you're- if
 2 you want to like (.1) [join?
 3 Jen [Oh yeah,
 4 please do
 5 Tim Yeah?
 6 Jen [(((nodding)) Yeah
 7 Kat [[Yes definitely=
 8 Mia =Unless you're like shopping
 9 (.7) for like [other people
 10 Tim [You- yeah I mean
 11 like ((steps forward)) you guys
 12 sound like you have one of the
 13 best ideas.
 14 Tim I'm [really=
 15 Jen [Yeah!
 16 Tim =into it ((thumbs up)) I think
 17 it's [really] cool.
 18 Mia [Yes!]
 19 Jen Yes!
 20 Tim Um, so I- I would love to work
 21 with you [guys
 22 Kat [That's awesome



Fig. D "Oh yeah, please do"



Fig. E Tim steps forward



Fig. F Tim gives thumbs-up

Given the uncertainty surrounding levels of commitment, participants strive to interpret verbal and nonverbal actions as "participation cues" of the sort that, in the words of Keating and Sunakawa (2010:335), lead "to predictions that make collaboration and coordination possible." Consider the following instance (Examples 5 and 5A), in which a person's ambiguous bodily cues prompt verbal queries about his joint commitment to a team. At the end of the team-formation period, four teammates are sitting at a table, beginning to plan their hack, while a fifth stands at an easel taking notes. A sixth person, Lee, sits on the floor, talking with one of the developers. When Lee then sets his computer on the table and opens it up as if to begin working, Kat uses indirection in seeking to clarify his participation status, politely informing him that they have yet to meet.

Example 5

1 Kat ((to Lee)) I didn't- I didn't
 2 get your name
 3 (.1,2)
 4 Lee ((looks up from computer)) Hi?
 5 Kat Hi=
 6 Lee =Oh, I'm Le@e @@

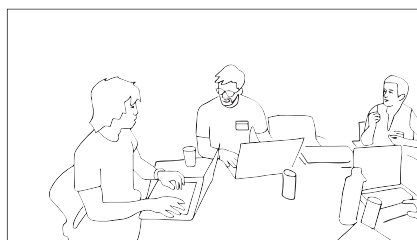


Fig. G "I didn't get your name"

After Lee gives his name, the other five members of the team go on to introduce themselves (in turns not reproduced here). Still, Lee's participation status—and the extent of his commitment—remain ambiguous. In the following excerpt, Kat takes a more direct approach to addressing this ambiguity, asking Lee if she is “misreading the fact that you're sitting with us” and “that you have your computer set up” as a sign of commitment (lines 5A.1–6).

Example 5A

- 1 Kat So, uh, Lee. Am I- am I
 2 mis:reading the fact that
 3 ((waving at him with both hands))
 4 you're sitting with us with that
 5 you have your computer set up
 6 [that you're gonna
 7 Lee [No, no I'm think I'm gonna join
 8 you guys.
 9 Kat [[Yeah? ((raises arms))
 10 Mia [[Yes::
 11 Jen [[Yea::[:h ((applauds))
 12 Lee [Yeah. @@ @@

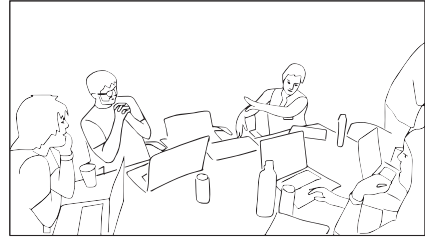


Fig. H Kat waves at Lee



Fig. I Kat and Jen celebrate

When Lee declares his intention to join the team (lines 5A.7–8), other members react as if celebrating a victory: raising her arms in a V shape, Kat pumps her fists, and Jen makes the American Sign Language sign for applause (Fig. I). Their elation reflects the competitive atmosphere surrounding the process of team-building. This example also illustrates some of the ambiguity surrounding team participation in this hackathon event, where team composition is protean and teammates use verbal resources to make their own and each other's committal acts explicitly legible as such.

Undoing Commitment

The ambiguity of participation in this event is such that, even once an individual has ostensibly committed to a project, teammates cannot count on his or her continuing membership. We illustrate this point with reference to the trajectory of Ivy, a journalist who initially seems to join one team but then leaves it for another. After the initial team-formation process, Ivy convenes with one team, the members of which are standing in front of sheets of paper taped to a wall, strategizing how to execute their hack. During this process, multiple impediments to collaborative imagining arise. Ivy disagrees repeatedly with the other team members about the content and scope of the hack. At one point, she says that the emerging idea “might look cool but I don't really know what it is.” When the other team members agree that compellingly demonstrating their idea in mock-up form is a sufficiently challenging goal for the two-day hackathon, Ivy expresses dissatisfaction with doing anything less than producing a fully functional tool. Minutes later, she wanders off to a different room, where another team working on an entirely different idea attempts to lure her away.

In the following strip of talk (Example 6), two developers, Ned and Ben, attempt to recruit Ivy, who has wandered away from her current team. After pitching their idea (for a tool that will help journalists find and vet sources), they playfully wheedle Ivy,

laughing as they satirize the soaring rhetoric of venture capitalists or disruptive innovators. Ivy responds with “mixed feeling” (lines 6.8–9) about changing teams.

Example 6

- 1 Ned You could be part of that
 2 (1.1)
 3 Ben You could (.2) build the future
 4 Ned @@@@ ((covering mouth))
 5 Ben ((smiling)) of sources- of
 6 stories, not material goods
 7 (2.8)
 8 Ivy I don't know I have mixed
 9 feelings about it ((smiles))

As the conversation unfolds (Example 6A), Ned and Ben continue to use humor as a resource for establishing intersubjectivity and, we suggest, as a “play frame” (Bateson 1972) in which they can easily laugh off Ivy's moral misgivings about leaving her team.

Example 6A

- 1 Ivy Before- I need to figure out if
 2 I'm on your team [fi::rst
 3 Ben [Don't- [We're=
 4 Ned [I- I-
 5 Ben =not set in any [direction]
 6 Ned [@@ @@ @@] @@
 7 Ben at all either, in terms of- like
 8 we think we know what we wanna
 9 do we wanna ((to Ned)) aggregate
 10 sources from the Internet to
 11 make it easier to find sources
 12 Ned @@ @@ (.3) We- (.3) We wanna be
 13 a (.8) speciali@zed-
 14 Ben A multinational [@@@ @@
 15 Ned [@@@@ ((doubles
 16 over)) No no no no [ok wait
 17 Ben [A
 18 multinational
 19 Ivy ((to Ben)) Are you building an
 20 empi::re?
 21 Ben @@ @@ We wanna be a
 22 multinational=
 23 Ned =(to Ivy)) You might as well
 24 just commit to this team
 25 Ben Ye:ah
 26 Ned I mean you've been standing here
 27 for what like ten, fifteen
 28 minutes?=
 29 Ben =And we've laughed at least four
 30 times (and we can do way more)

Compare Ben's comment in lines 6A.3–7 ("We're not set in any direction at all either") with Mia's profession "we're open" in Example 1. Here, it is a web developer who conveys receptiveness to collaborative imagination when seeking to recruit a journalist to his project. The jocular tenor of the preceding turns seems to suggest a humorous interpretation of this utterance to Ned. He reacts with laughter, perhaps in light of the disparity between their grandiloquent rhetoric and thus-far indefinite concept, or perhaps because of the ambiguously serious/nonserious tone of the pitch. In lines 6A.9–11, Ben reiterates the concept of their hack in broad strokes. In lines 6A.12–22, Ben and Ned reprise their humorous banter, laughing as Ben describes their project as an incipient "multinational" (lines 6A.14, 18, 22). Although Ivy has not been sharing in their laughter, in lines 6A.19–20, she contributes to the elaboration of their play frame, asking Ben, "Are you building an empire?" Ben and Ned then appear to construe Ivy's contribution to the shared state of play (along with the simple fact of her extended copresence) as a warrant for her to switch teams. "You might as well just commit to this team. I mean you've been standing here for what like ten, fifteen minutes?" Ned says (lines 6A.23–28). "And we've laughed at least four times," Ben continues (lines 6A.29–30).

Ben and Ned actively use humor as a resource for establishing commitment while also construing it as evidence of the achievement of intersubjectivity. Indeed, they seek to make verbal play itself into a kind of participation cue, though Ivy's level of involvement remains ambiguous. In the ensuing segment (Example 6B), they expand the play frame even further, addressing Ivy's compunctions about leaving her team. Before looking at this example in more detail, it may be useful to recall that Victor Turner (1986:32–33) referred to play as action "in the subjunctive mood" that is "contingent or hypothetical" and concerned "with the domain of 'as-if' rather than 'as-is.'" It is in this sense that Sherzer (2002:8) describes humor as an arena for "testing, experimenting with, and sometimes creating the boundaries of appropriate behavior." Speech play, he continues, "involves culture exploring and working out both its essence and the limits of its possibilities."

Example 6B

- 1 Ben I don't even think you should
 2 give them the- two weeks notice.
 3 Ned @@ @@ ((doubles over))
 4 Ben @@@
 5 Ned Wait which team are you on? I'll
 6 go talk to them
 7 Ben Yeah
 8 Ned No I won't
 9 Ben [I((to Ned)) We've
 10 Ned [I[What team are you on?
 11 Ben I'll go tell them
 12 [we poached you]
 13 Ivy [I was on the-] I'm on a team
 14 upsta::irs.
 15 Ben I'll go tell them we
 16 [poached you]
 17 Ned [Well they're-] they've left
 18 you.
 19 Ivy They haven't left ((slouches))
 20 me (.3)
 21 [I left them by talking with=

- 22 Ned [That's not really good team
 23 spirit
 24 Ivy =you guys
 25 Ben You've been abandoned. We
 26 wouldn't abandon you
 27 Ned @@@@ We would never do something
 28 like that.
 29 (1.5)
 30 Ben Alright we'll go tell them that
 31 we poached you.

In this excerpt, Ned and Ben use humor as a resource for “moral imagination” (Beidelman 1993), seeking to address Ivy’s qualms about quitting her team. The sequence begins when Ben makes an incongruous reference to the imperative of traditional workplace etiquette that a departing worker give an employer two weeks’ notice (lines 6B.1–2); the implication is that hackathons are not work, and that a team is not an employer. Ned and Ben both joke that they will break the bad news to Ivy’s team themselves. Ned offers to “go talk to them” (line 6B.5–6) and then immediately retracts his offer (line 6B.8). Ben, in turn says, “I’ll go tell them we poached you” (lines 6B.11–12), playfully reiterating this intention two more times (lines 6B.15–16, 30–31). His emphasis on the term “poach” suggests a sense of cavalier satisfaction about playing beyond the bounds of good sportsmanship, and mirrors the competitive spirit regarding team recruitment expressed in Example 5A above.

Ivy’s self-repair in lines 13–14 (“I was on the- I’m on a team”) points to the conflicting commitments of her ambiguous participation status. The two developers joke that Ivy’s teammates are responsible for her departure, not Ivy herself. “They’ve left you . . . That’s not really good team spirit,” Ned says (lines 6B.17–18, 22–23). “You’ve been abandoned,” Ben elaborates (line 6B.25). This may be action in a sub-junctive mood, an attempt to explore the moral horizons of responsibility in a technoliberal participation framework, but the callous attitude that the developers playfully float clearly falls flat with Ivy. She responds by reiterating her own sense of responsibility and guilt: “They haven’t left me. I left them by talking with you guys” (lines 6B.19–24). As she speaks, she slumps her shoulders as if wearied by their wheedling or by the weight of her decision. Her resistance here is an important reminder that interactions in this context can occasion both enactment *and* contestation of a technoliberal participation ideology.

After this conversation but before she returns to talk with her original team, Ivy encounters Kat, whom she already knows and who is currently at work with Tim (Example 7). She commiserates with Kat, who has extensive experience as a hackathon participant, about vacillating between the two teams. Before Ivy explicitly states that she has scruples about betraying her teammates, Kat appears to draw the correct inference that she does.

Example 7

- 1 Kat Hello
 2 Ivy How’s it going?
 3 (.7)
 4 Kat Good. How’re you?
 5 (.7)
 6 Ivy Go::od. I’m kind of like (in
 7 between teams) right now

- 8 Kat O::h.
 9 Ivy No I'm ok, [it's just] like
 10 Kat [OK? @@]
 11 Ivy I was with one te::am but then
 12 this other team kind of like
 13 (1.8) decided to do an idea that
 14 was similar to mine?
 15 Kat ((nods)) Yeah=
 16 Ivy =And I want to help them on it.
 17 So it [all just like]
 18 Kat [Ye::ah. Yeah.]
 19 Definitely.
 20 Ivy Now I'm feeling like ((rocks
 21 shoulders)) moving teams
 22 Kat ((shrugs)) Mmm?
 23 Ivy like switching teams.
 24 (1.0)
 25 Kat ((Shaking head)) Hackathon.
 26 Tim @@ @@
 27 Kat ((Smiles toward Tim))
 28 Ivy Is that allowed? (.8) I feel so
 29 ba:[:d
 30 Kat [There's no rules. ((Shakes
 31 head)) It's hackathon.
 32 Ivy @@ @@ @@
 33 Kat ((to Tim)) [Hack]athon.
 34 Tim [Yeah]
 35 Ivy The pleasures [a:nd-
 36 Tim [Before I picked
 37 you guys [I was=
 38 Kat [I think
 39 Tim =looking everywhere
 40 Kat Yeah?
 41 Tim I was like “((frowns, shakes
 42 head))”

Here, Kat uses humor to assuage Ivy's misgivings about switching teams, while also dramatically enunciating the technoliberal nature of the overarching hackathon participation ideology. In response to Ivy's reluctant admission of thinking about "moving teams . . . switching teams" (lines 7.21–23) Kat states simply: "Hackathon" (line 7.25). Tim laughs, and Ivy smiles, but still expresses incredulity and guilt: "Is that allowed? I feel so bad" (line 7.28–29). Continuing to shake her head, Kat reiterates: "There's no rules. It's hackathon" (line 7.30–31). Ivy bursts into laughter, and Kat repeats a third time, "Hackathon" (line 7.33). Adding to the humor of Kat's remark, but also to its poignancy as an instance of ethical "objectification" (Keane 2014:18), she treats "hackathon" as a noncount noun rather than a count noun that would require the indefinite article (i.e., "it's a hackathon")—thus suggesting that it is not just an event like any other, but rather an altogether bigger concept or even state of mind. This playful shift from concrete to abstract, perhaps, is itself a kind of "scale-

jumping performativity” of the sort that Lempert (2012:140) describes, hinting that frameworks of hackathon participation are both locally situated and globally resonant.

Tim supports Kat, invoking his own disappointing experiences of “looking everywhere” (line 7.39) before settling on a team. The moral implications are clear: in the context of this competitive collaboration, self-interested calculation supersedes social obligations. Moments later (in a sequence not analyzed here), Ivy seems to broach the possibility of joining her friend Kat’s team. Kat dissuades her, saying, “I think we’re getting a lot of people. . . . We’ve got a handful of people already,” revealing yet again the limitations of social obligation in optimizing team membership.

On her way to inform her former teammates that she would be joining another team, Ivy confessed off-camera to the researcher that she felt like a contestant on a reality TV show—an intriguing association, given the connection that some scholars have found between reality television and neoliberal imaginaries of individual agency (e.g., McCarthy 2007). When she does break the news, Ivy’s original teammates appear unfazed. Upon seeing her, one immediately asks Ivy if she is “coming back.” As Ivy offers an account of why she is leaving the team, another teammate continues a phone call, barely acknowledging the departure as noteworthy. Subsequent events underline the potential fluidity of team membership: between the first and second day of the hackathon, Ivy’s new team collapses. In the aftermath, Ivy not only rejoins her first team, but also brings along Ned, one of the developers who had lured her away. And Ben, after his team disintegrates, leaves the hackathon altogether.

Conclusion

In this article, we have shown how the process of team-building at a hackathon event involves transitory allegiances and ambiguous participation statuses as participants seek to navigate between competing values of independence and interdependence. In our final example, one hackathon participant encourages another to leave a team to which she has previously committed for another that she deems more auspicious, with the epigrammatic remark, “There’s no rules. It’s hackathon.” How do people sustain participation in joint activity when prevailing ideologies of participation seem to authorize an “anything goes” approach to sociality? We have begun to answer this question by examining the ways in which they achieve joint commitment, in spite of its risks, in the earliest phases of collaboration. We suggest that mercurial allegiances reflect implicit understandings of individual rights and responsibilities resonant with the mores of the digital economy and implicit in the hackathon as an approach to organizing labor.

By calling attention to the overarching technoliberal participation ideology, it is not our intention to discount the significance of hackathons as sites for technical and cultural production—far from it. Rather, we suggest that this event genre self-consciously mirrors the volatility of start-up entrepreneurship. “Fail fast, fail often,” a mantra of Silicon Valley gurus, encapsulates the revalorization of volatility in the digital economy. In practice, an economy of fast-paced, free-market, high-concept innovation cycles presupposes a mobile, flexible, technically adroit, and calculatingly self-interested workforce—who, for all their potential gains, may still pay a high human toll (Carroll 2014). Hackathons are a microcosm of technoliberal volatility, amplifying free-market innovation cycles in an arena of fun, game-like competition. Neither is it our intention to imply that technoliberalism is simply an ideology of egoism unfettered: it is also a framework for conceptualizing the basis of community in terms of instrumental collaboration and a continuously renegotiable social contract.

Of course, these negotiations do not occur in a cultural or linguistic vacuum. A close analysis of interactions within the process of negotiating team membership shows the important role that shared and intersubjectively constituted communicative resources play in mediating the tension between independence and interdepend-

dence. As teams form, participants employ hedging strategies to mitigate prior commitments and defer future commitments. Speakers use embodied participation cues to signal their degree of commitment to team endeavors, though the implicit meanings of such cues sometimes require explicit verbal confirmation. Humor mitigates the moral vexation of shifting allegiances, allowing participants to joke about the consequences of withdrawing commitments, play with notions of responsibility, and laugh about the technoliberal participation ideology itself.

In a setting where most participants are unknown to each other and relationships are uncertain, language is a reliable resource for modulating expressions of joint commitment and thereby coordinating collaboration. Some forms of shared communicative competence may be determined by participants' shared involvement in digital-media production, but we have emphasized more general competencies—for instance, mitigating dispreferred responses and using humor to build alliances—that they share as speakers of English and, arguably, as human beings (Levinson 2006). Insofar as hackathon participants address the uncertainties of a volatile social arena through strategic, jointly accomplished patterns of talk, whatever liberties a technoliberal participation ideology may afford are, in part, offset by predictable regularities of conversational interaction.

Appendix: Transcription Conventions

[start of overlapping talk
]	end of overlapping talk
[[two utterances beginning in overlap
=	latching talk, no gap between utterances
-	interruption in talk
,	continuing intonation
.	stopping fall in tone
!	emphatic stopping tone
?	rising, questioning intonation
:	prolongation of prior sound
<u>undrln</u>	emphatic intonation
.hh	audible in-breath
@	laughter
(0.1)	numbers in parentheses indicate significant pause length, in tenths of a second
()	single parentheses indicate transcriber uncertainty
(())	double parentheses indicate annotation of gesture, etc.
“ ”	quotation marks represent reported speech

Note

Acknowledgments. This article is based in part on work supported by the National Science Foundation under grant no. BCS-1258640. Any opinions, findings, and conclusions or recommendations expressed herein are those of the authors and do not necessarily reflect the views of the National Science Foundation. We are very grateful to the organizers of Hacking Journalism, particularly Lindsey Wagner and Kawandee Virdee, for facilitating this research, and to the individual hackers who so graciously participated in this study. For commentary on drafts of this article, we warmly thank Dominic Boyer, Seth Hannah, Stefan Helmreich, Jean Jackson, Erica James, Shreeharsh Kelkar, Heather Paxson, Bambi Schieffelin, Susan Silbey, Maria Vidart-Delgado, and Ben Wurgaft. We are especially indebted to Paul Garrett for adept and meticulous editorial direction, and to the *JLA*'s anonymous reviewers for generous constructive feedback.

References

- Arnold, Lynnette
2012 "Reproducing Actions, Reproducing Power: Local Ideologies and Everyday Practices of Participation at a California Community Bike Shop." *Journal of Linguistic Anthropology* 22(3):137–158.
- Bateson, Gregory
1972 *Steps to an Ecology of Mind*. New York: Ballantine.
- Beidelman, T. O.
1993 *Moral Imagination in Kaguru Modes of Thought*. Washington, DC: Smithsonian.
- Boyer, Dominic
2013 *The Life Informatic: Newsmaking in the Digital Era*. Ithaca, NY: Cornell University Press.
- Briscoe, Gerard and Catherine Mulligan
2014 *Digital Innovation: The Hackathon Phenomenon*. London: Creativeworks London Work Paper No. 6.
- Broussard, Meredith
2015 "The Secret Lives of Hackathon Junkies." *The Atlantic*, July 8. <http://www.theatlantic.com/technology/archive/2015/07/the-secret-lives-of-hackathon-junkies/397895>, accessed July 24, 2015.
- Carroll, Rory
2014 "Silicon Valley's Culture of Failure . . . and 'The Walking Dead' It Leaves Behind." *The Guardian*, June 28. <http://www.theguardian.com/technology/2014/jun/28/silicon-valley-startup-failure-culture-success-myth>, accessed November 6, 2014.
- Clark, Herbert H.
2006 "Social Actions, Social Commitments." *In Roots of Human Sociality: Culture, Cognition, and Interaction*. N. J. Enfield and Stephen C. Levinson, eds. Pp. 126–150. New York: Berg.
- Clayman, Steven E.
2002 "Sequence and Solidarity." *In Group Cohesion, Trust and Solidarity*. Shane R. Thye and Edward J. Lawler, eds. Pp. 229–253. Greenwich, CT: JAI Press.
- Coleman, Gabriella
2013 *Coding Freedom: The Ethics and Aesthetics of Hacking*. Princeton, NJ: Princeton University Press.
- Du Bois, John W.
2007 "The Stance Triangle." *In Stancetaking in Discourse: Subjectivity, Evaluation, Interaction*. Robert Englebretson, ed. Pp. 139–182. Amsterdam: John Benjamins.
- Ekbia, Hamid and Bonnie Nardi
2014 "Heteromation and Its (Dis)contents: The Invisible Division of Labor between Humans and Machines." *First Monday* 19(6). <http://firstmonday.org/ojs/index.php/fm/article/view/5331/4090>, accessed July 28, 2015.
- Fattal, Alex
2012 Facebook: Corporate Hackers, a Billion Users, and the Geo-politics of the "Social Graph." *Anthropological Quarterly* 85(3):927–956.
- Fish, Adam, Luis F. R. Murillo, Lilly Nguyen, Aaron Panofsky and Christopher M. Kelty
2011 *Birds of the Internet: Towards a Field Guide to the Organization and Governance of Participation*. *Journal of Cultural Economy* 4(2):157–187.
- Flor, Nick V.
1998 "Side-by-Side Collaboration: A Case Study." *International Journal of Human-Computer Studies* 49(3):201–222.
- Goodwin, Charles and Marjorie Harness Goodwin
2004 "Participation." *In A Companion to Linguistic Anthropology*. Alessandro Duranti, ed. Pp. 222–244. Malden, MA: Blackwell.
- Hacking Journalism
2014 <http://hackingjournalism.com>, accessed August 31, 2014.
- Helmreich, Stefan
1998 *Silicon Second Nature: Culturing Artificial Life in a Digital World*. Berkeley: University of California Press.
- Hutchins, Edwin
1993 "Learning to Navigate." *In Understanding Practice: Perspectives on Activity and Context*. Seth Chaiklin and Jean Lave, eds. Pp. 35–63. Cambridge: Cambridge University Press.

- 2010 "Enaction, Imagination, and Insight." *In* *Enaction: Towards a New Paradigm for Cognitive Science*. John Stewart, Olivier Gapenne, and Ezequiel A. Di Paolo, eds. Pp. 425–450. Cambridge, MA: MIT Press.
- Ingold, Tim
2013 *Making: Anthropology, Archeology, Art and Architecture*. New York: Routledge.
- Irani, Lilly
2015 Hackathons and the Making of Entrepreneurial Citizenship. *Science, Technology, & Human Values* 40(5):799–824.
- Jones, Graham M. and Bambi B. Schieffelin
2009 "Enquoting Voices, Accomplishing Talk: Uses of *Be + Like* in Instant Messaging." *Language & Communication* 29(1):77–113.
- Keane, Webb
2014 Affordances and Reflexivity in Ethical Life: An Ethnographic Stance. *Anthropological Theory* 14(1):3–26.
- Keating, Elizabeth and Chiho Sunakawa
2010 "Participation Cues: Coordinating Activity and Collaboration in Complex Online Gaming Worlds." *Language in Society* 39(3):331–356.
- Kreiss, Daniel, Megan Finn, and Fred Turner
2011 "The Limits of Peer Production: Some Reminders from Max Weber for the Network Society." *New Media & Society* 13(2):243–259.
- Leckart, Steven
2012 "The 48-Hour Startup." *Wired* 20(3):106–111, 124.
2015 *The Hackathon Fast Track, From Campus to Silicon Valley*. *New York Times*, April 6. <http://nyti.ms/1F4MzFO>, accessed April 6, 2015.
- Lempert, Michael
2012 *Interaction Rescaled: How Monastic Debate Became a Diasporic Pedagogy*. *Anthropology & Education Quarterly* 43(2):138–156.
- Lewis-Kraus, Gideon
2015 "Power in Numbers." *New York Times Magazine*, July 19: 44–47.
- Levinson, Stephen C.
2006 "On the Human 'Interaction Engine.'" *In* *Roots of Human Sociality: Culture, Cognition, and Interaction*. N. J. Enfield and Stephen C. Levinson, eds. Pp. 39–69. New York: Berg.
- Lindtner, Silvia
2014 "Hackerspaces and the Internet of Things in China: How Makers Are Reinventing Industrial Production, Innovation, and the Self." *China Information* 28(2):145–167.
- Malaby, Thomas M.
2009 *Making Virtual Worlds: Linden Lab and Second Life*. Ithaca, NY: Cornell University Press.
- McCarthy, Anna
2007 "Reality Television: A Neoliberal Theater of Suffering." *Social Text* 25(4):17–41.
- Milian, Mark
2012 *Hackathons to Save the Planet*. *Business Week*, November 21. <http://www.bloomberg.com/bw/articles/2012-11-21/hackathons-to-save-the-planet>, accessed August 6, 2015.
- Murphy, Keith M.
2005 "Collaborative Imagining: The Interactive Use of Gestures, Talk, and Graphic Representation in Architectural Practice." *Semiotica* 156:113–145.
2011 "Building Stories: The Embodied Narration of What Might Come to Pass." *In* *Embodied Interaction: Language and Body in the Material World*. Jürgen Streeck, Charles Goodwin, and Curtis Lebaron, eds. Pp. 243–253. Cambridge: Cambridge University Press.
2012 "Transmodality and Temporality in Design Interactions." *Journal of Pragmatics* 44(14):1966–1981.
- Myers, Greg
1991 "Politeness and Certainty: The Language of Collaboration in an AI Project." *Social Studies of Science* 21(1):37–73.
- Peterson, T. F.
2003 *Nightwork: A History of Hacks and Pranks at MIT*. Cambridge, MA: MIT Press.
- Potts, Tracey
2010 "Life Hacking and Everyday Rhythm." *In* *Geographies of Rhythm: Nature, Place, Mobilities and Bodies*. Tim Edensor, ed. Pp. 33–44. Burlington, VT: Ashgate.

Riles, Annelise

2013 "Market Collaboration: Finance, Culture, and Ethnography after Neoliberalism." *American Anthropologist* 115(4):555–569.

Roosth, Hannah Sophia

2010 *Crafting Life: A Sensory Ethnography of Fabricated Biologies*. Ph.D. dissertation, Program in History, Anthropology, Science, Technology, and Society, MIT.

Sherzer, Joel

2002 *Speech Play and Verbal Art*. Austin: University of Texas Press.

Smith, Sara W. and Andreas H. Jucker

2000 "Actually and Other Markers of an Apparent Discrepancy between Propositional Attitudes of Conversational Partners." *In Pragmatic Markers and Propositional Attitude*. Gisele Andersen and Thorstein Fretheim, eds. Pp. 207–237. Amsterdam: John Benjamins.

Strauss, Claudia

2004 "Cultural Standing in the Expression of Opinion." *Language in Society* 33(2):161–194.

Turner, Fred

2006 *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: University of Chicago Press.

Turner, Victor

1986 "Body, Brain and Culture." *Performing Arts Journal* 10(2):26–34.