2 WORKING IN VIRTUAL KNOWLEDGE: AFFECTIVE LABOR IN SCHOLARLY COLLABORATION

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Scholarly work, especially in the humanities and the social sciences, is often seen as solitary. The lone, creative individual, reading and writing while sitting on a chair and gazing out a window, is a powerful image even as it draws attention to the very unglamorous nature of such work. This image of routine, often rather lonely activity contrasts sharply with the much more exciting image of teams of scientists working together in a laboratory, collecting samples, analyzing data, and sharing ideas. But the reality of scholarly work in the humanities and the social sciences has always been otherwise. Scholars in these fields often work together, for example, to conduct multinational and/or longitudinal projects; to turn raw archival and other data into systematic, comprehensible, and usable database records; to comment on colleagues' work; and to prepare publications. Thus, scholars in the humanities and the social sciences routinely engage in collaborative work, and in affective labor stemming from such collaboration, when engaged in the production and distribution of knowledge. The diffusion of information and communication technologies (ICTs) that has occurred in the past few decades offers many possibilities for augmenting or disrupting such collaborative work by shifting the boundaries between visible and invisible tasks, by influencing the division of labor within teams, and by bringing to light various affective underpinnings of scholarly practice. In this chapter, we focus on such affective aspects of scholarly work, and we develop a conceptual framework for understanding the range of affective activities that scholars in the social sciences and the humanities undertake in order to collaborate. We focus particularly on affective activities that may be changed by the incorporation of digital technologies into everyday scholarly practices. Thus, we explicitly address the working practices that are emerging with the use of

ICTs in the production of virtual knowledge, as discussed in the introduction to this volume.

We draw upon three resources to develop our conceptual framework. The first of these resources are theoretical, including the debate about immaterial and affective labor that started with Karl Marx (1861–1863). In recent times, such ideas have been developed as a means of understanding the ways in which ICTs are implicated in processes of globalization and deterritorialization within contemporary capitalist relations of production (Castells 1996; Hardt and Negri 2000; Terranova 2004). Furthermore, the introduction of ICTs into work makes previously invisible elements of collaboration visible, and we pose the question of whether this happens at the cost of affective labor, which may sometimes be best left implicit and tacit. Thus, we also draw upon another theoretical resource, namely literature about invisible work from the sociology of computer-supported work and of health (Star and Strauss 1999). Though there has been much discussion in that literature about technology in relation to both affective labor and invisible work, very little of it has focused on scholarly work. In discussing scholarly work and affective labor, we also draw on theoretical resources in the rhetoric of science (Gross 1990) and on recent studies focusing on affective aspects of scholarly practice (Fraser and Puwar 2008; Gill 2010).

Our second resource comes from empirical research by one of us (Stefan) on international collaboration in the field of social and economic history. In that field, geographically dispersed groups of historians collect data on specific regions and time periods to construct large datasets for international comparative research. (See Olson et al. 2008; Shrum et al. 2007.) In order to enhance access to their colleagues and to each other's data, the historians make use of computing and communication technology.

The third resource is our own experience of working together in writing this chapter. This resource builds on reflexive ethnographic approaches (Haraway 1997; Woolgar 1991; Mol 2002; Anderson 2006; Atkinson 2006; Ellis and Bochner 2000),[1] and it seeks to make visible our work practices related to collaborative writing. Such reflections on our own experiences of collaboration are not only a resource, but also an attempt to contribute to filling a gap in critical analyses of scholarly work, which we discuss throughout the chapter. As Rosalind Gill points out, "for all the interest in reflexivity in recent decades, the experiences of academics have somehow largely escaped critical attention" (2010, 229).

In the first section, we discuss the debates about immaterial and affective labor and how they relate to academic labor. That section ends with an outline of the three categories we use to understand scholarly collaboration: care work, articulation work, and persuasion work. We then introduce our two empirical cases: the collaborations of economic and social historians and our own collaboration. We then discuss each of the previously identified categories more fully in both theoretical and empirical terms, focusing on how they can be used to understand collaboration in situations where digital technologies are omnipresent. We conclude by discussing what our analysis means for the study of scholarly work and for the study of affective labor, suggesting that each could be improved by recognition of the other.

THE CHANGING NATURE OF LABOR AND SCHOLARLY WORK IN THE DIGITAL AGE

The changing nature of labor generated by the increasing use of ICTs in the late twentieth century has been a topic of detailed analysis in sociology, economics, political science, and other fields (Castells 1996; Hardt and Negri 2000; Terranova 2004). Under the umbrella terms *informatization* and/or *digitization*, the ICT-driven transformations of production and labor practices have been identified as causing—or anticipated to cause—the following structural, organizational, and ontological changes: deterritorialization of production processes; abstraction of labor practices, and a shift toward immaterial and affective labor. All of these changes constitute a new type of economy, captured by a variety of qualifiers, such as *post-industrial*, *information*, *digital*, *network*, and *knowledge* (Bell 1973; Negroponte 1995; Tapscott 1996; Castells 1996; Boyett and Boyett 2001; Webster 2002).

In this new type of economy, the network emerges as the dominant organizational model of production, which simultaneously provides and calls for collaborative labor structures organized without physical centers and spatial limitations. Put differently, the network as an organizational model of production facilitates deterritorialization of labor practices. Such a tendency toward deterritorialization is considered to promote the virtualization of labor processes and relations, i.e., to endorse computer-mediated functioning and existence of production sites and teams. Hardt and Negri posit that deterritorialized, virtualized work leads to abstracted cooperation. This arises through a process of homogenization, through which different

professional practices become converted into identical operations of manipulating information:

> In previous periods, . . . the tools generally were related in a relatively inflexible way to certain tasks or certain groups of tasks. . . . The computer proposes itself, in contrast, as the universal tool, or rather as the central tool, through which all activities might pass. Through the computerization of production, then, labor tends toward the position of abstract labor. (Hardt and Negri 2000, 292)

Deterritorialized, virtualized, homogenized, and abstracted knowledge and labor in the information economy shift progressively toward virtual labor and immaterial labor.

The term *immaterial labor*, introduced in Marx's *Theory of Surplus Value* (1861–1863), refers to those labor practices in which the product is not separable from the act of production. Marx gives as examples teachers, doctors, priests, and artists. In Hardt and Negri's account (2000), *immaterial labor* refers to the processing of information or to conceptual work, such as problem solving and/or symbolic manipulation, associated with media production, Web design, marketing, and the like. Other recent theoretical descendants of Marx's concept can be recognized in Bourdieu's (1980, 1986) notion of social capital; in Foucault's (1976/1998) idea of biopower; in Deleuze and Guattari's (1980/1987) theorizing on the production of innovations, values, and thinking processes; and in contemporary feminist studies, which have expanded the concept of immaterial labor to the areas of domestic life, biological reproduction, and sex work (Fortunati 2007). Particularly relevant for the analysis of the information economy are the conceptions of immaterial labor presented in the work of new media-oriented scholars, among them Hardt and Negri (2000), Lillie (2006), Coté and Pybus (2007), in which immaterial labor is characteristic of the information-processing jobs that have replaced manufacturing jobs in the information economy.[2]

Scholarly work, the form of immaterial labor analyzed in this chapter, is a distinctive example of an informational occupation. As Frank Webster points out, academic work both includes and opens the door to "the highest level informational occupations, those found at the hub of informational capitalism" (2002, 117). Interestingly, Marx already identified scholars and teachers in his original account on immaterial labor (1861–1863). This early recognition confirms that some professions, such as academic work, involve

immaterial labor as their primary mode of production, regardless of technological, economic, and overall societal developments. Some other forms of labor, however, emerge alongside such developments. For instance, the notion of "user labor" is directly associated with Web 2.0 practices related to user-generated content, and it continues to provoke debates about the economic, social, ethical, and other aspects of such a technologically generated novelty (van Dijck 2009; Baym and Burnett 2009; Terranova 2004). Moreover, as Gregg (2011) argues, mobile technologies challenge the affective and immaterial dimensions of both the work and the everyday life of professionals in informational occupations.

Information jobs, including scholarly work, employ information, communication, and affect in their production processes. This type of immaterial labor is bound up with human interaction, and hence with the creation and the manipulation of affects. Hardt and Negri (2000) thus define affective labor as a form of immaterial labor focused on the creation and the manipulation of affect. Similarly, Massumi presents affect as the ability to affect and/or to be affected, and argues that "affect is central to an understanding of our information-and-image-based late capitalist culture" (2002, 27). Although Massumi identifies affect as central to late capitalism, the significance of this notion can be found in much earlier writings. For instance, in one of the earliest accounts of affect, Aristotle describes affect, the basis of *pathos*, as "all those feelings that so change men as to affect their judgements" (2004, II.1). These words from the fourth century BC portray activities targeted at the creation and manipulation of affect almost identically to how contemporary authors depict and interpret affective labor. Still, Massumi also posits that "our condition is characterized by a surfeit of [affect]," and warns that, despite such a surfeit, "there is no cultural-theoretical vocabulary specific to affect" (2002, 27). We aim to contribute to such a vocabulary by proposing three categories of affective academic work.

Our definition of *affective labor* draws on the literature and on the understanding of the concept that emerged in the course of writing this chapter. In our conceptualization, *affective labor* refers to activities that create, sustain, and/or modify behaviors and judgments.[3] In a scholarly environment, affective labor can be found in formal and informal interactions between scholars, and between them and other social actors. The production of affect is also part of the goal of much academic work, including teaching and the preparation of texts.

In the remainder of this chapter, we explore the notion of affective labor with regard to scholarly practice, aiming to highlight, analyze, and interpret forms and roles of this aspect of academic work in relation to how the use of ICTs mediates processes of scholarly collaboration and knowledge production. In our analysis, we furthermore deploy the concept of invisibility, which is integral to both affective labor and scholarly practice.

Star and Strauss (1999) introduce the concept of invisibility to portray "the ecology of visible and invisible work"; however, they argue that "no work is either inherently visible or invisible" (1). They identify three ways in which invisibility of work is achieved: creating a non-person, disembedding background work, and abstracting and manipulating indicators. "Creating a non-person" refers to situations in which the product of the work is visible but the worker is invisible—for example, people who do cleaning work are often invisible, arriving late at night or early in the morning, but the result of their labor is visible to all. Disembedding background work is almost the reverse—the workers are quite present, but some of the work they do is relegated to the background. For example, in hospitals nurses are very visible but much of the work they do in looking after patients is taken for granted. "Abstracting and manipulating indicators" refers to the ways in which formal indicators are used to make certain tasks invisible. For example, in academic contexts in which productivity is quantified by a set of norms for different teaching, research, and administrative tasks, some of the sub-tasks of care and consideration become invisible. Universities increasingly deploy workload allocation systems based on notional numbers of hours for different tasks in order to balance the amount of work across individuals or across departments. Such systems rarely provide for the types of affective labor discussed here.

The concept of invisible work has been used to powerful effect in analyses of health-care work (Mesman 2008; Mort et al. 2003) and of computer-supported cooperative work (CSCW) (Schmidt and Simone 1996; Suchman 1987). Much of the literature on health care focuses on the invisible work of low-paid medical support staff, such as nurses, and even lower-paid ancillary workers, such as cleaners. More recently (Oudshoorn 2008; Wathen, Wyatt, and Harris 2008), the invisible work of patients and the family members and friends who care for them has received more attention. CSCW research draws upon earlier studies by Anselm Strauss of work and the division of labor. Strauss was concerned to focus on actual work practices and task

division rather than on the social division of labor. He also introduced the concept of articulation work to capture particular sorts of invisible work, namely "the meshing of the often numerous tasks, clusters of tasks . . . the meshing of efforts of various unit-workers (individuals, departments, etc.)" (1985, 8). Strauss' concept of articulation work and our own concepts of care work and persuasion work constitute three main categories of the conceptual framework we propose in this chapter, a framework we employ in analyzing the affective elements of scholarly practice.

Star and Strauss (1999) caution against attempts to make everything visible or to formalize all work, arguing that there are good reasons for some work to remain invisible.[4] We accept this point and develop it further in the remainder of this chapter, focusing on the role of ICTs in making various work practices visible. Also, we emphasize that there can be "bad," "unproductive," "unnecessary," and in other ways negative affective labor, positing that those aspects come to the fore with the emergence of technologically mediated visibility.

Based on our analysis of the literature (summarized above), our fieldwork with historians, and our own experience as academics (in general and in this particular instance), we identify three main categories for understanding the affective labor involved in scholarly collaboration. As previously mentioned, the three categories are care work, articulation work, and persuasion work. These are not intended to be either comprehensive or mutually exclusive; they are meant to be used as a heuristic to draw our attention as analysts to those aspects of scholarly work that often remain invisible or unspoken. Affective work is often only mentioned in passing in the literature. In our conceptual framework, affective engagement figures in all three categories. Before defining and illustrating each of these categories more fully, we introduce the empirical cases on which our analysis is based.

INTRODUCING THE CASES: HISTORIANS COLLABORATE AND SO DO WE

As was discussed in the preceding section, scholarly work has long been seen as a good example of immaterial labor. Despite this, as several scholars have commented, scholarly work has remained exempt from critical analysis. (See, e.g., Gill 2010.) This chapter contributes to filling that gap by drawing on fieldwork done in the framework of a research project on "socio-technological aspects of collaboratory projects in social and economic history," and

on our own experience of scholarly collaboration in general and of writing this chapter in particular. The fieldwork entailed an ethnographic study of the practices, risks, and opportunities associated with the implementation of the collaboratory model in the field of social and economic history.[5] More precisely, the project analyzed a number of collaboratories related to the International Institute of Social History (IISH) in Amsterdam.[6] These collaboratories included between 20 and 60 members, with varying backgrounds, located around the world. Each collaboratory revolved around a specific research topic, such as labor relations, strikes and lockouts, migrant organizations, life courses, or occupations. In most cases, collaboration focused on harmonizing and sharing existing databases, although some collaboratories built new databases by reinterpreting regional or national censuses and other material. Each collaboratory used computing and communication technology, and they also met a few times a year at conferences and workshops.

The fieldwork covered the period from early 2008 until the beginning of 2010 and combined various ethnographic techniques, among them participant observation, text analysis, and interviewing. An important part of the fieldwork was Stefan's attendance at both formal and informal sessions of international workshops and conferences. In addition, various members of the collaboratories—within as well as outside the IISH—were interviewed.[7] The online interaction among the members of the various collaboratories was studied closely by monitoring and analyzing the use of the collaborative software and the mailing lists. Finally, all the relevant documents on and by the collaboratories, such as funding proposals, guidelines on metadata, taxonomies, code books, minutes of meetings, and position papers, were examined.

Our second empirical example comes from our own experience of scholarly collaboration in preparing this chapter. Our collaboration began in early 2009, when Stefan and Sally individually responded to the call for abstracts for this volume. In the spring of 2009, they began meeting together to prepare a joint extended abstract. Smiljana joined the Virtual Knowledge Studio at the beginning of July, and was invited to contribute to the preparation of this chapter very soon thereafter. Some features of our early encounters are discussed below. The empirical material about our collaboration includes conversations, email messages, earlier drafts of the chapter, and written reflections developed individually at different points during the preparation of the chapter. When we first prepared such reflections, we did not anticipate that they would appear in the final version in a form close to their original

form (sometimes edited slightly in order to make them comprehensible for a wider audience). In addition, we considered suggestions and comments made by reviewers in the Virtual Knowledge Studio (Clement Levallois, Stephanie Steinmetz, Charles van den Heuvel, and Paul Wouters), who suggested that their comments could be used in our analysis, and on anonymous reviews obtained by the publisher and the editors of the volume.

Although the idea to use our own experience of producing this chapter was mentioned in the extended abstract prepared at an early stage, it took some time to find an approach that suited our ambitions. The idea of a reflexive approach proved to be very useful, since it enabled us to discuss our personal experiences in academic collaboration and thus to highlight aspects of affective labor that could not be easily included in our discussion of the fieldwork on historical collaboratories for ethical, methodological, and epistemological reasons. We used our own collaboration to help us think through some of the more personal and affective experiences of academic collaboration without compromising the confidentiality and trust relations that Stefan developed with the historians during his fieldwork. Including our own experiences also stems from a more general methodological concern about how to capture emotional and affective processes in scholarly collaboration. In our view, it is highly problematic to attempt to describe the collaborative practices of other scholars as if they were something remote and exotic about which we could know and be objective. To focus on "sense" while denying our "sensibility," as discussed further in the next section, is not only ethically dubious; it also deprives us of an important source of insight.

To illustrate our methodological and epistemological concerns and the use of our reflections, we provide the following example, in which Smiljana reflects on how a remark made during a workshop to discuss early drafts of chapters for this book led her to consider the research process and how to write about it:

> I was back on the "S-team"[8] board, both emotionally and intellectually. And isn't it exactly what we are writing about in this chapter? Is it possible to separate emotional and intellectual aspects of academic, especially collaborative, work? Are we and do we want to be professionals who are adding, editing, interpreting the data without adding/editing/interpreting our own and our colleagues' feelings emerging from a professional activity? What if we . . . switched from traditional *Introduction-Theory-Method-Results-Conclusion* structure . . . to a form of academic expression that would stress and encourage reflexive writing? Wouldn't such a shift give us a new lens to ob-

serve and understand better theoretical, methodological, epistemological, and other decisions put forward in scholarly texts? (Smiljana's reflection, September 11, 2009)

In addition to illustrating some of our methodological and ethical concerns, this reflection also talks about the importance of care work.

CARE WORK: LOOKING AFTER PEOPLE, DATA, AND TECHNOLOGY

In this section, we introduce the concept of care work, which entails work done in looking after our colleagues, our tools, and our outputs, and which is the first building block of the conceptual framework we propose in this chapter. We provide some additional background to the concept before discussing different instances of care work, namely care in the choice of collaborators and various instances of technically mediated care work, such as care of technology, intellectual property, and/or metadata. We conclude the section by examining the positive and negative aspects of carelessness.

We use the word 'care' deliberately, aware of its double meaning. It can mean "taking care of," thus, it can refer to the ways in which scholars care for their sources, their own data and texts, their colleagues, and their material resources (such as computers and computer programs). 'Care' also means "being careful," as scholars often are with their own claims and those of others. However, by using the word 'care' we do not imply that academic work is necessarily always either caring or careful. Sadly, uncaring and/or careless treatment of data, sources, texts, and colleagues is not unknown in scholarly practice. The advantage of the word 'care' is that it draws attention to how various aspects of scholarly work can be understood from the perspective of affective labor.

In scholarly practice, care work has both formalized and informal aspects. The formalized aspects are exemplified by disciplinary ethical codes, citation styles, peer review processes, promotion committees, and the like. These formalized and visible aspects of academic care work are indispensable elements of socialization into the scholarly community, taught and practiced throughout academic curricula. Informal and commonly invisible elements of academic care work are broad-ranging and often appear under a rather vague umbrella of personal and/or institutional "style of behavior." Along this line, academic organizations are deemed more or less hierarchical, collaborative, considerate of newcomers, open to innovation, and so on.

Similarly, some academics are known to be supportive and careful readers of colleagues' texts; attentive listeners to colleagues' problems; willing to share contacts, sources, and resources; and non-authoritarian. Others are known for exactly opposite behaviors. At an extreme, Gill observes the growing aggression in anonymous peer review, wondering when it became "acceptable to write of a colleague's work, 'this is self-indulgent crap'" (2010, 239).

It is clear that many informal aspects of academic care work are not unique to academia. Other arenas of professional work share similar benefits and/or difficulties and enjoy relatively high levels of autonomy. Yet the academic community may be especially vulnerable to difficulties arising from this sphere of professional practice, owing to its continuous effort to safeguard itself from affect in any "secular" meaning. Academic "sense," meaning a carefully nurtured, especially self-nurtured, image of scholarly practice, has traditionally been juxtaposed with non-academic "sensibility." Nonetheless, the academic community, focusing on its proclaimed pursuits of rationality and objectivity (even when embodied in anti-positivist, postmodern, and other lines of thought) sometimes falls into fallacy *pars pro toto*, assuming that features of formal academic work warrant analogous features of informal activities. If academics are trained and subsequently assessed on their ability to gather, analyze, and present their findings non-affectively (and here we consciously avoid the word 'objectively'), it is expected that they will engage in other activities in the same manner. But counter-examples are not hard to find. For instance, partners for cooperative research and writing are often chosen, or avoided, not only on the basis of research interests and areas of expertise, but also by virtue of compatible and/or desired status positions, projected institutional and/or individual benefits, personal styles of writing and professional behavior, and other affective reasons. We ourselves did this. We do not work on the same project, and we come from different disciplines, yet our reasons for working together were as much affective as instrumental. Sally wrote the following on the subject of her reaction to the suggestion made by the other editors that she and Stefan work together:

> I've done a lot of co-authoring in my career, and I'm becoming increasingly fussy about whom I work with. It's not always an easy process but when it works, it results in something better than I could have done by myself. I liked the idea of working with Stefan—I had liked the style of his PhD very much and he seemed like someone I could work with on a more personal level. So we met. . . . We talked. (Sally's reflection, September 8, 2009)

Stefan was more ambivalent at first, largely as a result of earlier experiences:

> To be frank, I had mixed feelings about this idea [to co-write a chapter with Sally]. . . . I always envisioned the process of co-authoring as being one of the most inspiring moments of academic dialogue. In practice, however, my few experiences in this field proved to be rather disappointing. No discussions that went on for hours in dark pubs, no in-depth engagement with my contributions by the other authors (at least not at the level I was hoping for). (Stefan's reflection, September 9, 2009)

Among the historians whose work we analyzed, personal networks and styles of behavior also dominate the process of selecting collaborators. In some cases, the collaborations date from before the formation of the actual collaboratory. One collaboratory, for example, builds on a national data collection project that started in the early 1990s and only became a collaboratory in early 2008. In other instances, the idea to create a collaboratory was the starting point for finding suitable collaborators. Identifying people with appropriate expertise and comparable research approaches subsequently proved difficult, especially since these projects revolved around methodological innovation in the field and thus required a relatively high amount of trust among the participating historians. A related issue is that the work is, for the most part, voluntary. Individual participation is not based on financial incentives, but mainly on social bonds and academic opportunities. Many members are affiliated with the wider network of the IISH, and many have long experience in cooperating with researchers at the institute. The fact that the collaboratories are initiated by the IISH is sometimes mentioned as an additional reason to participate, because of its leading position in social and economic history.

The most obvious form of care work in computer-mediated collaborations is the care of the technology. At universities and at research institutes, there has traditionally been a clear division of labor between scholars in the humanities and the social sciences and members of the technical support staff. If not antagonism, there is often incomprehension on both sides. In relation to the discussion above about how invisibility is achieved, technical workers are non-persons for many scholars. The technicians and the work they do to ensure a smooth-running infrastructure are invisible. As with cleaning, it is only by its absence or failure that their work becomes visible to the academics.

In an attempt to overcome the need for technical expertise, the historians chose to use Liferay, a relatively easy-to-use software package for

collaboration. It was expected that future support by technicians would be limited and that researchers would be responsible for (and would take care of) maintaining the software. Aside from the efficiency argument, it was argued that this would ensure that the researchers would engage with the software and would learn how it functioned. But most of the researchers remained reluctant to engage with the software at a technical level, and constantly commented on its minor flaws and on the lack of immediate technical support. Most of the historians kept expecting the software to work effortlessly and viewed the technical support staff as mere service providers. The technical specialists, on the other hand, only rarely engaged in depth with the historians' use of the software in their daily work routines. As part of an interventionist research strategy, Stefan acted as an interface in this process and mediated the interactions between the academics and members of the technical staff. (See the introduction to this volume.)

We too used collaborative software that was being developed and introduced within the Virtual Knowledge Studio contemporaneously with the preparation of this book. All three of us are rather cautious of the virtues of such spaces. Nonetheless, we did use the Virtual Knowledge Studio collaboratory rather intensively, as we reflected during an email exchange:

> I already put "my part" of the chapter in the collab, but I am still working on it. By the way, it is interesting to see that our collaborative space—as self-declared techno-skeptics—is the most intensively used of all in [the Virtual Knowledge Studio collaboratory]. (Stefan's email to Smiljana and Sally, October 20, 2009)

This illustrates that academics do not have to be particularly enthusiastic about ICTs in order to use them effectively.

The introduction of technology and the formalization of data bring other questions of collaboration and ownership to the fore. Issues of intellectual property have always been important in research, and there are long-standing systems of copyright and patenting for dealing with them. The development of shared databases raises new challenges, especially for historians who do not have established guidelines for the sharing of data or for the acknowledgment of the work needed to create and maintain shared data. The development of intellectual property arrangements in social and economic history can be understood as formal care work. Since historians are increasingly sharing their data at various stages of the research process, open data licenses are now prominent on the agenda.

Sharing historical data implies sharing knowledge about the process of collecting and analyzing the data. This knowledge is formally created in various ways: historians add metadata to their dataset (the usual list of attributes of the individual dataset), they make annotations in the database (used to specify the process through which the data has been obtained from existing data), and they are supposed to write methodological papers (extended accounts of data collection and analysis). In principle, they can also discuss the research process in their publications, although this is not very common in the field of history and most collaboratories are not yet in the publishing phase. In addition, members of the collaboratories exchange knowledge of the research process during workshops and conferences, via online discussion forums, and via email and mailing lists. The amount of care invested in these processes varies greatly.

As was mentioned earlier, care work is not always positive in intent or outcome, and is sometimes absent in collegial interaction. An example of lack of care—for others' work schedules and needs—is the absence of engagement between members of the historical collaboratories. Very few of them approach this proactively. Most have to be asked repeatedly to contribute their data or the accompanying meta-knowledge. The collaboratory appears to be a low priority, and they only react when asked. Despite the general acceptance of collaborative research in history and in other academic fields, it remains rare for researchers to come together systematically as an interpretive community in which the multiple, situated, and distinctive subjectivities and perspectives of the researchers are exchanged in an "interpretive zone" (Wasser and Bresler 1996, 6). Rather, there is a tendency to decontextualize, reduce, and objectify fieldwork into textual transcripts, with researchers engaging in limited explicit reflexive processes to "put back in" and take into account the contexts, subjectivities, and research relationships through which the texts and the knowledge are produced and made meaningful (Mauthner and Doucet 2008, 977).

In our own experience, we have witnessed acts of carelessness, and of being carefree. We were interested in the ways in which technology might provoke hostility:

> We [three of us] returned to the issue of "negative" affective labor—and shared some experiences Smiljana and I had recently had in other contexts—unproductive performance of niceness and the role of email.[9] I doubt we can use such examples as they involve other colleagues but at least they sensitize us to the dark side of affective

labor (of course, there are much darker sides in academia—plagiarism, ripping off graduate students). (Sally's reflection, September 21, 2009)

In the same reflection, Sally also discussed a specific act of care, or carelessness, which might be termed "epistemological carelessness":

When Smiljana and I talked on Friday, she asked me if she should do more reading in order to expand the "jottings" document [the first draft of a theoretical section]. I encouraged her to just write—that she probably already knew more than enough to expand that document. Of course, I think my colleagues should read, but sometimes I think in academic work we get too caught up in the literature and sometimes it pays to let oneself go. (Sally's reflection, September 21, 2009)

This injunction to carelessness, or to the importance of being carefree, resonated with Stefan:

Originally I had not planned to work on some more reflections—although we agreed to do—but Sally's reflections inspired some ideas. One of them relates to the last point of Sally's [September 21] reflections, about the advice to "just write." For me, Sally's writing in general and her reflections in particular really inspire me to write without first spending several years with my nose in the books. . . . I always make academic writing much more complicated than it needs to be and then I spend weeks to make the text readable again. (Stefan's reflection, September 22, 2009)

We recognize that our focus on technically mediated care work means that some important aspects of care work, particularly face-to-face interactions with colleagues, are underestimated. We will return to this in the conclusion to the chapter.

ARTICULATION WORK: GOING WITH THE FLOW

The term *articulation work* refers to labor practices that support the articulation and the coordination of distributed work. The notion of articulation work was used in the CSCW literature to refer primarily to the work that gets things back on track in the event of work processes going wrong or not working or simply not having been anticipated by those who designed the system. The concept has been used to argue that designers (and those who study them) should pay attention to "the hidden tasks of articulation work" in order to understand why computer systems work or not (Star 1999, 387). Strauss points out that articulation work is "a kind of supra-type of work

in any division of labor, done by the various actors" (1985, 8). Similarly, Schmidt and Bannon emphasize that "articulation work arises as [an] integral part of cooperative work as a set of activities required to manage the distributed nature of cooperative work" (1992, 7). In this section, we discuss coordination work in academic collaboration before discussing what the technical mediation of coordination work in such settings means for the autonomy, the visibility, and the formality or informality of scholars and tasks.

The amount of articulation work needed to coordinate cooperative work varies with the size of the group. The articulation work we did in order to write this chapter is obviously not as substantial as that needed to manage and coordinate the creation of a large database by 40 historians. In all cases, however, articulation work often isn't taken into account in the development of a collaborative project and instead falls in the category of invisible work. In practice, articulation work proves to be one of the most time-consuming activities in a collaboratory. However, since this type of work is rarely visible, extra coordination efforts are often not covered in the budget of a collaboratory, and many funding agencies do not recognize the actual costs incurred—a phenomenon that has also been observed in other academic collaboratories (Cummings and Kiesler 2005).

The size of a group is not the only factor determining the extent of articulation work required. The degree of conjunctive tasks can also play an important role. Conjunctive tasks (Sonnenwald 2007, 646) are tasks that entail contributions by all—or at least the majority—of the group's members. In the case of the collaboratories in social and economic history, such tasks may entail the creation of a common code book, the licensing of data, guidelines for creating and using metadata, or the development of a collectively used taxonomy. The development of a code book, for example, requires a lot of discussion, coordination and, eventually, agreement in order to be useful for the data-gathering process of all members of the group. In general, the collaboratories having the most conjunctive tasks required the most articulation work.

In the collaboratories in social and economic history, most research tasks are carried out individually. Each historian contributes data on his or her own theme, region, and/or time period of expertise. Often such a collaboratory originates from one or more national projects, which try to increase their scope. Adding foreign experts to the project team means that the collaboratory covers more ground, but it also necessitates the coordination of a

greater number of individual efforts in order to make comparison of international data possible.

Our own coordination required creating clarity about the expectations we each individually had with regard to the content of the chapter and how to proceed. Since most texts develop their purpose and affect in the creative process of writing, we were fully aware of the limitations of such an endeavor. Still, we extensively discussed the structure and argument of the chapter during various meetings in the canteen, particularly our use of some kind of taxonomy. We also discussed the appropriate word. Instead of 'taxonomy' we could also have used 'classification', 'types', 'sensitizing concepts', or 'heuristic', each of which has slightly different connotations. For Stefan, this discussion showed how one needs to be explicit in collaboration—perhaps even more explicit than one would be if one did not collaborate:

> Looking back on our meeting last Thursday it is obvious that I had some problems with the whole concept of a taxonomy. I probably still have them (and I would certainly prefer to call "it" a conceptual framework), but now it seems much more interesting that we actually had such a long discussion on this concept. . . . Normally, when working alone, I would not have bothered to think for long about my discomfort [with the word 'taxonomy']. I would have probably proceeded to work on the chapter without including a taxonomy. But the collaboration required me to be explicit. (Stefan's reflection, September 22, 2009)

This requirement to be explicit about certain aspects of the research process seems to be especially relevant when co-creating large historical databases. The geographically distributed nature of a collaboratory entails that historians are explicit about the collection, the construction, and the analysis of their data. However, traditionally, historians do not elaborate on their research process in their publications or in the information accompanying their data. In contrast to sociologists and other social scientists, social and economic historians do not explicitly and systematically discuss their research process, nor do they consistently monitor how they collect and analyze their data. In part, this can be explained by the discipline's tradition to write both for academics and for a general audience. Historians assume that the general audience is not interested in technical discussions about the research process, and if too much methodological detail is given the audience may lose interest in the study at hand.

Obviously, there are limits to what one can make explicit. Not all knowledge is recordable in easily transferred forms, such as documents (Finholt

and Olson 1997, 28), and as a result it is not easily shared across distance. Nevertheless, when co-creating social scientific data one can develop elaborate rules for annotation and metadata. In doing so, one can transfer some of the tacit knowledge about a dataset and thus potentially improve interpretations of data by secondary users (Zimmerman 2008). However, such a system is very time consuming, and it isn't clear whether collaborators think that this extra effort produces enough extra benefits. Moreover, as Michener et al. (1997, 335) argue, there is no end to metadata: "There is no unique, minimal, and sufficient set of metadata for any given data set, since sufficiency depends on the use(s) to which the data are put."

If articulation work is defined as a set of activities required to manage the distributed nature of cooperative work, then coordination is too narrow a concept. Coordination suggests that such tasks are planned and are capable of being planned. The advantage of articulation work as a concept is that it captures both formal, planned coordination activities and all the informal, invisible, *ad hoc*, unplanned work that people do, especially when conducting complex tasks in large organizations distributed across time and space. Such articulation work within academic contexts includes the communication of know-how and tacit knowledge about an academic field and about how systems within the organization work.

The unplanned and informal aspects of articulation work are also closely related to the idea of "corridor talk" and the loss thereof in collaborations without co-location. In a collaboratory, the regular mechanisms of meeting in the corridor and inquiring about work-related or personal matters are absent. The implications of this are difficult to uncover in full, but the loss of common ground and the need to bridge distance are important aspects of articulation work. One common example is the practical organization of face-to-face meetings.

Historians working together to construct shared databases undertake much of the articulation work identified in the CSCW literature on the design of information systems, especially in relation to classification. Communications about tasks, task divisions, timetables, classification, and system design, especially as they are made increasingly public on electronic discussion lists and forums, are also an important part of articulation work. With the wider adoption of collaborative software in academic practice, articulation work increases the visibility of elements of scholars' work that previously may not have been observable.

Another example of making scholars' work increasingly visible through the use of ICTs comes from our own experience of sharing calendars. While we were working on this chapter, all members of the Virtual Knowledge Studio were asked to share our Web calendars with colleagues. Aimed at facilitating the planning of meetings, this request had one peculiar feature: we were instructed not to select a "busy/not busy" option when sharing calendars, although such an option would still serve the goal of facilitating the scheduling of meetings and similar activities. Instead, we were instructed to make the specificities of our engagements visible. Some colleagues noted that their calendars included information about private engagements and thus were not appropriate for sharing, and for that reason they chose the "busy/not busy" option despite the instruction. One colleague, in a private communication, explained why he included his dental appointments in the shared calendar and no other appointments: he "did not like the way it was superimposed." "Corridor talk" went a step further, raising the question of whether scholars really wanted and needed to share all their professional engagements with colleagues. This example illustrates the phenomenon of blurring the boundaries between the public and the private, a phenomenon that is well known to those who analyze blogging, twittering, and other communicative practices prompted by new media. Yet it also illustrates Star and Strauss' observation that, despite the possibilities provided by ICTs, "some forms of . . . discretion activity may often be best left unspecified, and not represented in system requirements" (1999, 9). More fundamentally, the case of shared Web calendars points to the question Star and Strauss propose as a starting point in thinking about CSCW: "What exactly *is* work, and to whom it might (or should) be visible or invisible?" (1999, 10) Indeed, the sharing of calendars has long been of interest within CSCW. In a review of the field in 1993, Bannon and Hughes point to the asymmetry "between the work required and the benefits accrued" (1993, 25), suggesting that senior managers are the main beneficiaries of such systems.

In this section, we have demonstrated how articulation work can expand not only as a result of larger groups working together, as would be expected, but also as a result of the technology itself which seems to require explicit and visible coordination. Not only does articulation work make previously invisible tasks more visible; it can also add to the range of tasks. Also, as the calendar example shows, calls to facilitate articulation work can be ambiguous and can prompt debates on some of the fundamental themes in academic

practice, such as scholars' right to autonomy, authority, and confidentiality of work. These aspects of scholarly work are closely related to persuasion work.

PERSUASION WORK: THE GENTLE ART

The rhetoric of science has become an established field of inquiry (Perelman and Olbrechts-Tyteca 1969; Gross 1990; Simons 1990; Gross and Keith 1997; Fahnestock 1999; Ceccarelli 2001; Gross 2006). Yet associating rhetoric with science, and persuasion with scholarly discourse, can sometimes provoke hostility from academic colleagues who regard such ideas as almost blasphemous. This arises from the academic community's previously mentioned efforts to dissociate itself from the field of affect and to establish scholarly work as exclusively logos-based. Yet the beauty of rhetoric lies its two-millennia-old tradition of demonstrating, across historical, cultural, and ideological contexts, that logos, ethos, and pathos cannot be separated.

In the domain of science, a rhetorical approach posits that claims of science are products of persuasion. "Rhetorically, the creation of knowledge is a task beginning with self-persuasion and ending with the persuasion of others." (Gross 1990, 3) But what exactly is the subject of scientists' persuasion and self-persuasion? Gross explains:

> [T]he rhetorical view of science does not deny "the brute facts of nature"; it merely affirms that these "facts," whatever they are, are not science itself, knowledge itself. Scientific knowledge consists of the current answers to three questions, answers that are the product of professional conversation: What range of "brute facts" is worth investigating? How is this range to be investigated? What do the results of these investigations mean? Whatever they are, the "brute facts" themselves mean nothing; only statements have meaning, and of the truth of statements we must be persuaded. (4)

Our third category refers to the persuasion work that is part and parcel of scholarly practice. We distinguish three main forms: credibility work, reputation work, and position work. *Credibility work* refers to those elements of scholarly practice captured above by Gross. In this type of activity, scholars' labor is aimed at persuading others (colleagues, peer reviewers, scientific community, funding agencies, general public, and so on), and also at persuading themselves that the phenomena of their analyses are worthy of investigation and that the proposed method(s) of data gathering, analysis, and interpretation best meet the accepted criteria of validity and reliability. Closely related to this, reputation work is aimed at demonstrating that

a scholar is capable of producing an analysis that meets those criteria—that is, that the scholar possesses sufficient expertise to produce research findings and conclusions that will be regarded as valid and reliable by his or her academic peers. Finally, *position work* refers to those scholarly activities related to achieving, confirming, and preserving a certain status or position in an academic community. These three subtypes of persuasion work are closely related and commonly appear in the sequence credibility-reputation-position. Put differently, achieving credibility (that is, persuading others of the credibility of one's work) commonly leads to achieving scholarly reputation (that is, attaining and/or confirming the reputation of an expert in a research area). Such an achievement may result in a scholarly position; that is, it leads to attaining, preserving, or losing a specific position in an academic community, both in the scholar's immediate institutional surroundings and in the broader research community.

In the historical collaboratories, the use of ICTs brings elements of persuasion work to the fore in a specific way: it renders various aspects of scholarly work visible, as was discussed above. One problem that historians face in this regard is the difficulty of assessing how explicit the producer of the data has to be so that others can understand the specificities of his or her input and, consequently, assess the credibility of his or her work. Another problem that emerges from the use of ICTs is the fear of outside scrutiny. Through explicating that which was implicit, through making public what was private, patterns of practice become open for scrutiny and contestation (Berg 1997, 1086). In a field in which the research process has always been predominantly implicit, making the research process more amenable to inspection by others can be an obstacle to collaboration. In practice, the obstacles to investing time in sharing knowledge and working together may be too great. Despite being members of teams, many researchers work in individualistic ways. However, some historians also argued that the collaborative projects as such did actually increase discussions among peers, but primarily during face-to-face meetings (as at workshops and conferences) and only rarely via mailing lists or in the forum of the collaborative software.

As Kok and Wouters argue in this volume, the use of ICTs in the creation of large historical databases also created some discussion among peers in the social sciences and the humanities. Among mainstream historians, the increased use of computers and statistical methods by social and economic historians is often frowned upon, partially as a result of a more general

skepticism about quantitative research methods and a preference for persuasive storytelling. The social science community, on the other hand, was increasingly persuaded by the more nuanced research results of social and economic historians. Kok and Wouters show how earlier attempts to create and analyze large historical datasets did not always meet the standards of this community, but more recent efforts are generally considered to be both credible and persuasive.

The writing of this chapter also included various aspects of persuasion work, starting with self-persuasion related to the credibility of the selected topic(s) and method(s). In the course of writing the chapter, we also had numerous offline and online discussions related to the credibility of various parts of our work. As was described earlier, Stefan had doubts about the proposed theoretical and conceptual frameworks, so Sally and Smiljana attempted (ultimately with success) to persuade him of the validity of such an analytic strategy. Still, some of Stefan's worries remained, as one of Sally's reflections illustrates:

> At our last meeting (3 November) Stefan raised his worries about our insufficiently sophisticated theoretical framework—worries prompted by his reading of Gill and Pratt (2008). This got me really worried. But I have had time to read the article and now I'm less worried. . . . [They] are doing something rather different, and I think we can actually use parts of it. (Sally's reflection, November 11, 2009)

On the other hand, Smiljana had concerns about the fieldwork data:

> What I would like to see related to ethnographic work are very specific examples, something like "on November 14, 2008 the following message . . . was posted to the collab on international labor. Immediately after, few historians reacted by posting the following replies. . . . This example illustrates difficulties in articulation work, which arise when. . . ." I am making this all up, of course, just to illustrate. In the same way, we need concrete examples—quotes—from interviews and citations from the documents analyzed. (Smiljana's in-text comments, November 3, 2009)

Our reviewers also had comments and suggestions for enhancing the argumentation of this chapter. Stephanie said "I have to admit that I am not sure whether I find the presentation of results as purely narratives very convincing." Along the same line, Paul asked "Would it be possible to also have personal quotes / anecdotes from the historical case study?" Clement suggested that "the defense of the thesis along the whole chapter could be made more salient." Similarly, Paul observed that "currently, the empirical

stuff is rather loose, but you obviously know this. So I would be interested to see how you will weave the material together into a strong story." These comments clearly illustrate the importance of persuasiveness in scholarly discourse and debate: pure narratives are not *convincing*; the *defense* of the thesis could be more salient; the materials should be woven together into a *strong* story. These expressions used by our reviewers indicate that both the "brute facts" and the statements made about them figure in establishing the credibility of scholarly work and, ultimately, in the processes of creating and validating knowledge.

Persuasion work confirms the importance of affective labor in scholarly practice. However, such a role is rarely visible or stated. One instance of the academic community's disclosure of its "vulnerability to affect" is the institution of blind peer review, which is rooted in an acknowledgment of the possibility of affect's influencing scholars' judgment. Still, even this hallmark of academic work does not always or fully reflect the whole range of scholarly activities susceptible to affect. Fraser and Puwar argue that "emotional and affective relations are *central* to the ways in which researchers engage with, produce, understand and translate what becomes 'research'" (2008, 2, emphasis added).

Those relations, though, stem from different roots. Sometimes affective aspects of academic work get edited out of the scholarly record because they are deemed inappropriate according to the norms of scholarly discourse.[10] More significant, however, is the fact that such "discursive inappropriateness" might undermine academic credibility by pointing at aspects of scholarly practice rejected within an ideal model of modern science:

> Laying out the affective details [of research] often seems to detract from academic authority. The sense of adventure, drama, mystery, fear—and sometimes, let's face it, the boredom—which produces research . . . risks revealing, perhaps even "exposing," the so-called unscholarly, anecdotal, irrational and unscientific dimensions of the research process. The very opposition between rational and irrational, analysis and imagination, subjectivity and objectivity, constitutes an important if not a central part of the legacy of an ideal of modern science. (Fraser and Puwar 2008, 4)

Still, losing academic credibility is not an end but rather a beginning of an academic drama that might emerge from disclosing the affective elements of academic work. As was mentioned above, credibility leads to reputation, which further leads to position; and this chain works in both ways, upward and downward. Properly trained agents (as Bourdieu would put it)

of scholarly practice are not expected to have emotion while on duty—that is, when collecting, analyzing, and/or presenting "the brute facts of nature." On the contrary, they are trained and expected to "add to the sum of valid, reliable, statistically demonstrated, "objective" knowledge. After which, they would go into the field to witness to their faith, spread their learning and presumably reproduce themselves." (Wander and Jaehne 2000, 214) Not only does challenging such an academic order result in potentially damaged academic credibility; more important, it results in the loss of a scholar's ability to participate in the academic market—in other words, to exchange the products of his or her scholarly labor. Fraser and Puwar write:

> [W]hile we [scholars] do not sell our "raw" research data but rather make it an accessible resource to each other, it is nevertheless a commodity in kind which can be translated into (exchanged for) published articles, royalties, esteem-ratings, reputation, status, departmental income, promotion and invitations in the global circuits of academic productivity. (2008, 14)

This summarizes the credibility-reputation-position interplay in scholarly work by highlighting one of the best-kept secrets of scholarly practice: that academic work, just like any other type of labor, strives for profit, whether in the form of affective revenue, such as recognition and reputation, or in the more tangible form of money and other material resources. Still, the image of an idealistic and (nearly) altruistic scholar is so prevalent that even critically oriented authors seem to accept it too readily. For instance, in her recent and worthwhile endeavor to put the academic community under scrutiny, Gill portrays scholars as people "notoriously bad at talking about (poor) pay" who fail to "secure pay deals that even keep pace with inflation," and who are "more likely than any other occupational group to do unpaid overtime," yet are "deeply invested in and passionately attached to their work"—so much so that they "often draw no distinction between [their] work and [them]selves" (2010, 232). Contrary to this, in one of the rare, openly critical accounts of scholarly practice, Philip Wander writes:

> Morning after morning, day after day, year after year, I faced arguments based on "science." Then one day in the early 1970s, after about five years of struggle, it dawned on me that what I was hearing was not science. The arguments were not about science; they did not have science as their purpose. They were about hiring, retention, tenure, promotion, chair elections, travel funds, etc. . . . These efforts had less to do with science . . . than with resource allocation. (Wander and Jaehne 2000, 214)

Of course, it would be both cynical and unjust to claim that the allocation of resources constitutes the main part and/or purpose of scholarly practice. Yet concealing this and similar aspects of academic work is equally unjust, as it implies not only concealing the fact that scholarly labor can be unconstructive, negative, and unpleasant but also obscuring the complexity of knowledge production and validation.

CONCLUSION

In this chapter, we have begun to develop a vocabulary for discussing the affective labor involved in scholarly collaboration. We have introduced three categories—care work, articulation work, and persuasion work—in order to understand the ways in which the affective labor of scholars may change as they produce virtual knowledge and work in technologically intensive environments, which are characteristic of late capitalism. We have drawn attention to the ways in which scholars care (or do not care) for their data, their tools, and themselves, and for their relationships with colleagues. We have illustrated the importance of articulation work and the ways in which it is changed with the introduction of collaborative tools, which themselves affect the relative visibility of different tasks. We have also explored how persuasion work figures in scholarly practice, shaping this practice, collaborative academic relationships, and the production of academic works.

There are at least three issues we have not explored fully. The first is nonmediated care work and the importance of direct interaction for affect. The dependence on technology as a collaborative tool renders face-to-face care work even more invisible. Our own reflections are full of examples of face-to-face care work, particularly the pleasure we all had in our meetings that took place in our workplace canteen. But because our focus is on technologically mediated care work, we have not discussed face-to-face care work here. Second, we have not discussed the gendered division of affective labor. Research in other sectors, such as health care, demonstrates that care work is often women's work. In the case of organized religion, on the other hand, much of the (visible) care work is done by men (e.g., imams and priests). Though we expect that gender plays an important role in academic settings, it has not been our focus in this chapter. The third issue we have not discussed is the potential for using technology directly in knowledge production (see chapter 5 below) rather than as a tool for supporting collaboration

(as we have done in this chapter). In the case of the Labor Relations Collaboratory, there is a lack of reliable quantitative data about labor relations in the pre-modern period, and so the experts have to construct "guesstimates." The best way of doing this remains controversial among historians, and until now advanced statistical or modeling techniques have not been used to fill gaps in the historical record.

But we have begun to fill some gaps that are of direct interest to us. The literature on immaterial and affective labor has hitherto neglected scholarly work, even though it is one of the paradigm cases of immaterial labor. One advantage of focusing on the affective labor of scholars that might be relevant for other types of work is the double nature of scholarly collaboration in that affect is both the outcome and part of the process. As our discussion of persuasion work demonstrates, producing affect is central to the scholarly process, whereas our discussions of care and articulation work focus more on affect among scholars.

As we mentioned in the introduction to our two cases, one reason we included our own collaboration as a case was that we felt it was easier to discuss our own feelings about working together. It would have been more difficult for the historians to do so, not only because we would have to impute motivation, feeling, and affect but also because we might appear to be judging them in ways we do not want. In retrospect, we are aware that we underestimated the difficulties of using our own experiences in this way—something Hernández et al. (2010, 11) also experienced when they wrote autoethnographic accounts of their academic careers. Our work was influenced not only by the collaboration among the three of us but also by the broader context in which we work, including reviewers of this chapter, other contributors to the book, and other colleagues at the Virtual Knowledge Studio. In order to protect those wider working relationships, we have sometimes exercised a degree of self-censorship in choosing not to include some of our observations or some of our email exchanges. This does confirm, however, that preserving invisibility is sometimes crucial to good care work. Acknowledging the complexities of our collaboration not only confirmed what we already knew about the deeply social nature of scholarly work; it also reinforced our view of affective labor as one of the most important elements of scholarly practice.

Romanticized and stereotypical narratives depicting scholars' work as exclusively logos-based, as aimed at producing knowledge, and as bettering the

world conceal the fact that the academic community is not immune to both positive and negative aspects of affective engagement, and that, in fact, those emotional engagements constitute an inevitable element of knowledge production. Therefore, to understand the dynamics of knowledge production more fully, scholarly practice should be rethought and reformulated so as to incorporate the full range of scholarly labor—the practices of care and neglect, the complexities of articulation work, the importance and hidden dimensions of persuasion work, and so on. In short, academic sensibility, with both its positive and negative faces, should become an equal counterpart of academic sense in analyses of scholarly practice and knowledge production.

NOTES

1. Here we have cited a selection of works from the extensive literature of cultural studies, science and technology studies, and post-structuralist anthropology that have embraced self-reflexive styles of writing.

2. The "immaterial labor" debate is largely concerned with the changing nature of labor in late capitalist economies. There is indeed much more to be said about how the changing nature of immaterial and affective labor as experienced by scholars relates to the increased commercialization of universities and publicly funded research more generally. That is beyond the scope of this chapter. For more on this topic, see Fraser and Puwar 2008; Gill 2010.

3. See Krause 2008 for a detailed account of the relationship between affect and judgment.

4. For example, those involved in the so-called caring professions may carry on interacting with students or patients, in a holistic way, under or outside the surveillance of bureaucratic accountability.

5. Bos et al. (2007, 656) define a collaboratory as an organizational entity that spans distance, supports rich and recurring human interaction oriented to a common research area, fosters contact between researchers known to one another and between researchers not known to one another, and provides access to data, artifacts, and tools required to accomplish research tasks.

6. Although the project aimed to understand the impact of the collaboratory model on knowledge production in social and economic history, and thus explored changes in the exchange of tacit and implicit knowledge, the project was not specifically designed to study affective labor.

7. In all, 35 historians, economists, sociologists, and demographers were interviewed. Besides having different disciplinary backgrounds, the interviewees worked in

various countries (the United Kingdom, Russia, the United States, Germany, Turkey, Portugal, Uruguay, Argentina, South Korea, India, the Netherlands, Italy, Spain, Finland, and Brazil). Although more men with high academic status were interviewed, the group of interviewees also included women and scholars in the early stages of their careers.

8. This refers to us. As Smiljana recalled on September 11, 2009, "when Sally submitted the abstract [for the Virtual Knowledge Studio book workshop in August 2009], the first sensation of *ourness* suddenly struck me. What triggered such a sensation was a nickname Sally came up with: "Please find attached a slightly longer outline for the chapter being prepared by the 'S-team,' she wrote, alluding to our first names. So, perhaps symbolically, accidentally, and/or semi-jokingly, the team was born."

9. On the politics and etiquette of email, especially in relation to how email can intensify work, see Gregg 2011.

10. As Fraser and Puwar put it, "it is still more feasible to preserve the affective qualities of an enquiry within a novel than it is within the documentation of fieldwork" (2008, 3).

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