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TECHNOLOGY AS EXPERIENCE

3 A Pragmatist Approach to Technology as Experience

Meaning arises when we try to put what culture and language have crystallized from the past, together with what we feel, wish and think about our present point in life.
—V. Turner (1986, p. 33)

Clifford Geertz (1986, p. 374) wrote that without experience, or something like it, "cultural analyses seem to float several feet above their human ground." If culture is not to be used in a meaningless manner, separate from people fearing, hoping, imagining, revolting, and consoling, "it must engage some sort of felt life, which might as well be called experience" (ibid.). The turn to practice from cognitive science and software engineering has certainly renewed our understanding of people's relationships with technology. However, when the social becomes reified in our considerations of people and technology, practice theories also float several feet above their human ground. By excluding or separating off people's felt experiences with technology in order to concentrate on the logic of practice, people's concerns, enthusiasms, and ambivalence about participation are abstracted away or averaged out. Hodges's articulation of the "agonized compromise" of participation in community, where her participation is like complying or taking part despite feelings to the contrary, is simply not expressed. The "felt life" is not engaged in many socially oriented or culturally oriented explanations of people's participation in community, including technologically mediated community. If we are not to hover above the human ground, we must engage with the felt life, "which might as well be called experience."

'Experience' is the word that is most likely to express something of the felt life. It is a very rich word, discursively open and complex, and redolent of life as lived, not just as theorized. Without wanting to foreclose on

experience, we should clarify how we are going to use the term in reflecting on technology. The openness of 'experience' is likely to become confusing unless we do some ground clearing, and that is quite hard to do for a couple of reasons. One is that experience is ever present. We are always engaged in experience even when we are trying to stand back from it to describe it. For example, I (John) can describe my experience of walking the Samarian Gorge in terms of the length and narrowness of the gorge, at points almost being able to touch both sides and not see the top, the tremendous heat and the concomitant pleasure in a drink of water, thoughts of the valley flooded in the winter, goats standing on tiny ledges high up the sides of the gorge, wonder at how they got there, the tiredness and parched thirstiness of ten miles of hot walking shockingly and giddily relieved by a black beach and the cooling Mediterranean at the end. Any description of an experience like this is constituted of things and events, what they did to those involved, and how they responded. Standing back from the experience of walking the gorge to describe it to a friend is, of course, living the experience of describing not the experience being described. But it is nevertheless an experience. Because we are always involved in experience, there is no God's-eye view or privileged position of neutrality or authority. Whatever we say about experience must therefore be provisional, a consequence of the reflexivity of seeing described in chapter 2.

A second difficulty is that we tend to believe that we already know what experience is. As a consequence, it may be difficult to even convince readers that there is a need for further discussion in order to clarify how the word is being used. A gentle reminder of how inconsistently we use the word in everyday discourse might help shake our certainties about what we mean by experience. We make distinctions between learning something and having a learning experience, as if learning something is not an experience. We separate what we have learned from education and from our own experience, as if we were not involved in our own education. We distinguish between relationships we have over the Internet and relationships that we experience directly. Again, who exactly was experiencing the Internet relationship? We can also make distinctions between doing something like reading and having the real experience. Of course there is nothing silly about any of these uses of 'experience'. One of the beauties of our use of language is the flexibility with which we use words and phrases without losing our interlocutors. It is not that people see reading as something

other than experience, but perhaps that they see a difference worth making between reading about somebody else's experience and having that experience themselves. It may not be that people see school learning as something other than experience but that they see the passivity of much school learning as far from an ideal that involves agency and engagement. In everyday discourse, we can handle layers of meaning when we talk about experience. However, in this context we need to attempt some clarification of how we are going to use the term experience.

The good news, of course, is that we are not the first to try to make sense of experience or use experience to make sense of something like people's transactions with technology. Philosophers, psychologists, and anthropologists have tangled with the term for a long time and those who describe their work as pragmatist or phenomenological have made it a central focus. Bruner and Turner's 1986 book *The Anthropology of Experience* collects together a range of anthropological contributions that try to describe experience and the variety of ways it is expressed in a range of cultures. The philosophical writings of John Dewey and Wilhelm Dilthey from the early decades of the twentieth century make their presence felt in that collection, and continue to stimulate, inform, and perplex anybody interested in understanding experience today. William James's 1902 book *The Varieties of Religious Experience: A Study in Human Nature* is a classic psychological investigation of people's relationships with religion as a particular striving for meaning that gives people a hold on reality. Academics are not the only ones to try to develop a systematic account of experience. Many writers and filmmakers practice their craft under the influence of a practical understanding of experience and how they might influence or help create experience. For example, Boorstin (1990) argues that the Hollywood moviemaker must be able to experience the movie in the way the public will but also must know what it takes on a technical level to help the public construct just that experience. In attempting to clarify our own use of experience, we have been particularly influenced by pragmatist approaches to experience.

Background to Pragmatism and Experience

Pragmatism's practical focus and the richness of its explorations of experience give it a modernity and a freshness that serve well our inquiries into technology as experience. Coyne (1995, p. 17), writing about technology,

lists the following features of a pragmatist approach: "[It] embraces the primacy of human action, the practicalities of human involvement, the materiality of the world, the interaction of the senses, and the formative power of technology." Although this is a very useful starting point, it does not express the vitality of a pragmatist approach to experience—the livedness and feltness of it, the ordinariness and enchantment, the organic rhythms and personal engagement. For this, and to really appreciate the potential in a pragmatist approach to experience, we need to look much more closely at how pragmatists think of action and involvement. Behind the basic commitments lie aspects of action that are lacking in the practice-oriented and activity-oriented approaches discussed in chapter 2. Our approach to getting behind those words is to look closely at what two pragmatists, John Dewey and Mikhail Bakhtin, have to offer.

Although Dewey's and Bakhtin's working lives overlapped and they had a common interest in developing accounts of activity and experience that were not constrained by the demands of analytic philosophy or positivist science, there is no sign that they influenced each other in any way, or even that they read each other's work. And although they were both committed to shaping a philosophical approach that would contribute to enriching the ordinary everyday experience of life, they approach the task in quite different ways. Nonetheless, we find in their interests and approaches the potential for a synthesis that helps us to clarify what we mean by experience and that could contribute to enriching our lives with technology. Most particularly, we find the emphasis both men placed on aesthetic experience and its continuity with everyday experience an enlivening antidote to the means-to-ends instrumentalism that marks much discussion of people and technology and that is often used as a criticism of pragmatism itself. The criticism goes like this: If it is concerned with practice and with the consequences of action—rather than with high ideas—pragmatism must be instrumentalist, concerned with means apart from ends. As we shall see later, nothing could be further from the truth. Indeed, the pragmatist aesthetics of Dewey and Bakhtin requires us to inquire creatively about ends as well as means and about the relationship between means and ends.

John Dewey

John Dewey (1859–1952) was one of the first and most influential exponents of pragmatism. Along with Charles Sanders Peirce, William James,

and George Herbert Mead, Dewey contributed to the development of a radical, and some suggest distinctly American, response to the social, political, and intellectual developments—slavery and abolitionism, the American Civil War, industrial unrest, probability theory and relativity theory, challenges to religious faith, and philosophical questioning of what it is to know by Kant and Hegel—that brought an end to metaphysical certainties (see for example Joas 1993; Menand 2002). Dewey and his fellow pragmatists worked at a time when foundational questions were being asked about science and knowledge and about the relationship between scientific representation and the world being represented. Although each of them developed a distinctive response, they shared an approach that marked an important beginning for pragmatism. Rather than attempting to replace the old metaphysical certainties with new certainties based on another philosophy or theory, "their endeavor under these conditions was geared to inquiring after the possibilities of science and of democracy and to finding a meaningful life for the individual" (Joas 1993, p. 1). They drew attention to the gap that had developed between science and the ordinary everyday experience of being and acting in the world and responded in a practical revisionary way by inquiring into what science might be and how it might be used to make life more meaningful for people.

Dewey was equally concerned about the relationship between philosophy and life as lived. As far as he was concerned, a philosophy that is not critically relevant to life and its living should be changed or abandoned. He argued that, because ideas survive only while they help us to make sense of and deal with our situation, we should never feel trapped by outdated theories or worldviews. Dewey's commitment to relevance was made in the context of a view of the world as marked by change. As Stuhr (1998) put it, Dewey's "pragmatic philosophy emphasized precariousness, disturbance and instability, sweeping social change and technological transformation, genuine novelty and real beginnings and endings." Stuhr argued that against this background Dewey constructed a philosophy that was always at bottom a social and political philosophy, concerned with creating a democratic culture.

Our interest is in using Dewey to help clarify aspects of experience in the context of people's changing relationships with technology. Stuhr's point is that all of Dewey's writings on education, work, art, technology, morality, and religion, his discussion of inquiry and logic, and also his comprehensive account of experience is social and political philosophy. Moreover,

Stuhr argues that it is through this lens—philosophy as criticism, discriminating judgment, and appraisal of value—that Dewey and pragmatism retain their relevance today. It is in response to his social and political concerns, his concern for a philosophy that helps us to think critically and make value judgments, that Dewey makes experience the heart of his work. If a pragmatist focus on experience does nothing else, then, it reminds us that philosophy must deal with life as lived and felt. Furthermore, if positioning experience in the context of the work to be done to develop a democratic culture does nothing else, it takes it out of the slippery world of packaged and marketed experiences and places it firmly in the ordinary, everyday worlds of people working at life.

In contrast with other philosophical approaches whose starting point is a theory of knowledge or subjective states, pragmatism starts with experience and, by committing to a holistic, relational worldview, tries to ensure that experience is never reduced to categories such as knowledge, behavior, or feelings. For pragmatists such as Dewey, experience is more personal than behavior; it involves an active self who not only engages in but also creatively shapes action. It is more inclusive than knowledge because it tries to encapsulate a person's full relationship—sensory, emotional, and intellectual—with his or her physical and social environment. And, embedded as it is in what people do in the world and what is done to them, it is more than feelings. If these reductions are rejected, experience can be seen as the irreducible totality of people acting, sensing, thinking, feeling, and making meaning in a setting, including their perception and sensation of their own actions. Dewey offered a useful definition along these lines. Experience, he wrote, "includes what men do and suffer, what they strive for, love, believe and endure, and also how men act and are acted upon, the ways in which they do and suffer, desire and enjoy, see, believe, imagine—in short, processes of experiencing. . . . It is "double barreled" in that it recognizes in its primary integrity no division between act and material, subject and object, but contains them both in an unanalyzed totality." (1929a, pp. 10–11)

According to Dewey, therefore, experience is constituted by the relationship between self and object—by concerned, feeling people acting and the materials and tools they use. The concerned person is always already engaged and comes to every situation with personal interests and ideologies. Moreover, as we shall argue in detail later, Dewey's model of action was

designed to restore the continuity between refined and intensified forms of experience—the paradigm of which is aesthetic experience—and the everyday events, doings, and sufferings that constitute ordinary experience. He argued that all experience can be rich and fulfilling, and that creative democracy can thrive only when we value rich experience in all aspects of our lives and are prepared to work toward fulfilling the potential in human life.

Mikhail Bakhtin

Whereas Dewey was clearly in the vanguard of American pragmatism, the Russian Mikhail Bakhtin (1895–1975) would be unlikely to appear in any history of pragmatism. Although many commentators treat his work as phenomenological, others such as Holquist and Emerson have pointed to the pragmatic character of some of his work, especially his approach to knowing. For us, a pragmatist reading of his work is warranted by his commitment to knowing as a practical process, a plurality of perspectives, and historicity in thinking. In the social sciences, a revival of interest in pragmatism has coincided with the emergence of Bakhtin and this has generated some interest in juxtapositions between Bakhtin and pragmatism. For example, Francisco Loriggio (1990) has teased out the similarities and differences between the Bakhtin Circle and Pragmatist Psychology in their conceptualizations of mind. Caryl Emerson, an eminent Bakhtin scholar, has argued that the "three founders of American pragmatism—James, Dewey, and Mead—can be usefully juxtaposed to Bakhtin" (1993, p. 2). Michael Holquist, another major Bakhtin scholar, describes Bakhtin's earliest philosophical interests as including "the status of the knowing subject, the relation of art to lived experience, the existence of other persons, and the complexities of responsibility in the area of discourse as well as in the area of ethics" (1990, p. 2). Perhaps not surprisingly in view of the interests just listed, Holquist refers to Bakhtin's philosophy as "a pragmatically-oriented theory of knowledge" (ibid., p. 15).

The context for Bakhtin's work is similar in some respects to the social, political, and intellectual context of the development of American pragmatism. The Russian Revolution, the First World War, Marxism-Leninism, neo-Kantianism, and the new physics provide an active background of change, uncertainty, and violence. However, Bakhtin did not have a university career, and he was in exile in Kazakhstan while other founders of pragmatism were advocating for academic freedom in the United States. Bakhtin

lived in a world of suspicion and hardship where he became politically suspect for participating in discussion groups and where some of his manuscripts were damaged for want of decent living conditions. So while the American pragmatists and Bakhtin shared a world of change and uncertainty, their experiences of it could hardly have been more different.

It is hardly surprising that political readings of Bakhtin's work abound. Hirschkop (1986), for example, sees a number of Bakhtin's ideas, including novelistic discourse, carnival, and dialogue, as attempts to confront Stalinism and its culture by using concepts of a popular subversive tradition. Though the specifics of particular political readings of Bakhtin are hotly debated, most commentators agree that Bakhtin's work on experience and discourse is a response against the totalizing tendencies of movements as diverse as totalitarian governments and scientific rationalism, indeed any movement that forecloses on individuality and personhood. Specifically, his response is an attempt to carve out a niche for the humanities in discourse on personal and social life. For Bakhtin, the humanities highlight the weight of each particular moment and encounter, the proper corrective to totalizing tendencies.

Bakhtin's resistance to totalizing systems and their associated morality—like Dewey's social and political philosophy—strongly influenced the ways in which he conceptualized experience and the commitment he made to felt life. He thought that totalizing systems worked by alienating people from the most meaningful quality of everyday experience, the particular response formed in relation to and with others from which a sense of self emerges. This analysis led Bakhtin, especially in his early essays, to focus on developing a clear sense of individuality. For example, in *Towards a Philosophy of the Act* his concern was with how a sense of self emerges in everyday activities. In contrast with those approaches described in chapter 2, his approach to activity is to focus on how individuals intone acts of living and knowing. By 'intone' he means how individuals make acts their own, how they make them unique, personal experiences through the particularities of interpreting, feeling, and making value judgments and distinctions that are ethically worthwhile. Thus, although experience always occurs in cultural, historical, and material contexts, meaningful engagement depends on the event or action being felt, known, and valued in unique ways. This is also the kind of meaningful engagement that transforms people and systems.

If Dewey gets us some of the way from social practice to meaningful experience, Bakhtin takes us the rest of the way to the primacy of felt life. Perhaps his suspicion of system would not allow him to settle on and idealize community as the American pragmatists, including Dewey, did. His resistance to reifying any social structures takes him to the point where one of the central focuses of his work is the way in which individuals continuously reinforce and de-stabilize each other, and in the process create selfhood. As we will see later, this is the kind of nonconformism that leads him to propose that all unity is relational or dialogical, a claim that is central to his radically processual view of human experience. His suspicion of system also pushed his conceptualization of the particular moment and intoning of experience to a methodological focus on small personal lives. For him the formation of subjectivity and intersubjectivity occurs in a world of "proper names" (Bakhtin 1993, p. 53) in relationships between particular people who cannot be abstracted to systems.

Enriching Activity through Aesthetic Experience

In contrast with the approaches to action and practice described in chapter 2, both Dewey and Bakhtin present a view of activity as simultaneously sensual, emotional, and intellectual. And although it is more explicit and more radically personal in Bakhtin, both also describe individuals making their acts unique experiences through their own particular interpretations, feelings, and value judgments. It is all well and good to make such claims for experience; it is another matter to make them convincingly, to bring readers along and to leave them feeling that this view of activity is both viable and valuable. Both Dewey and Bakhtin try to do this by holding up aesthetic experience as the paradigm for all experience.

For both Dewey and Bakhtin aesthetic experience is the key to understanding how rich all experience can be. They argue that it is in aesthetic experience that our need for a sense of the meaningfulness and wholeness of our action is fulfilled. One of the most important points that Dewey and Bakhtin make about aesthetic experience is that it should be seen as continuous with ordinary experience. Their aim is to demonstrate just how rich experience can be and to inquire into the nature of aesthetic experience so that we can see its character and conditions well enough to use them in other areas of our lives.

Although the word 'aesthetic' is normally used to refer to fine art, Dewey's and Bakhtin's use of aesthetic experience is not reserved for art or what we normally think of as art. In *Art as Experience*, Dewey argued directly against a museum conception of art and an identification of aesthetic experience with art objects. Recently, Shusterman (2000) updated this argument by providing a rigorous defense of the aesthetic merits of rap music. Moving outside of the realms of art altogether, Dewey made links between the aesthetic experience of looking at paintings or listening to music and everyday raw aesthetic experiences that demand our attention and make us come *alive*. Here Dewey had in mind both dramatic events, such as a fire brigade speeding by, the controlled implosion of a tower block, or a particularly spectacular goal in a game of football, and more sedate activities, such as gardening and mindfully caring for a child. Making a similar move, Bakhtin drew attention to the aesthetic qualities of loving relationships in which one person values another as a separate center of value. What holds all these examples together is that they describe the kinds of moments and activities in which we live fully, activities filled with meaning and value that are also often primarily sensuous.

If aesthetic experience is not to refer exclusively to art objects, what is it that marks out aesthetic experience and gives it its value? For Dewey, aesthetic experience is paradigmatic of the potential richness of all experience not because of any single quality it possesses but because of its "more consummate and zestful integration of all the elements of ordinary experience," which gives "the experiencer a still larger feeling of wholeness and order in the world" (Shusterman 2000, p. 15). According to Dewey (1934, p. 40), the enemies of the aesthetic are "the humdrum; slackness of loose ends; submission to convention in practice and intellectual procedure."

In aesthetic experience, the lively integration of means and ends, meaning and movement, involving all our sensory and intellectual faculties is emotionally satisfying and fulfilling. Each act relates meaningfully to the total action and is felt by the experiencer to have a unity or a wholeness that is fulfilling. Not fulfilling in a shallow, self-satisfying sense, but in the sense that in connecting fully with the precariousness of living, in the suffering and undergoing, the expressiveness of experience is revealed to us. Connecting fully produces enduring changes. The world is changed by the outcome on the world of the total action and also by the changes brought

about in the experiencer, whose sense of self may be transformed, and whose perspective and attitudes are likely to have changed.

An Example of Aesthetic Experience: Jazz with Courtney Pine

The first example that comes to mind of a personal experience that fits with this description of aesthetic experience involves a jazz session that I (John) attended years ago. I enjoyed jazz and I particularly liked going to sessions at the Cork Jazz Festival because there was also something about the festival experience that I enjoyed, not just this festival, I had the same feeling for the Cork Film Festival. Perhaps it was the intense concentration on something I already liked. Or perhaps it was the feeling that a fairly tame interest—listening to jazz records occasionally or going to a film every couple of weeks—became something vibrant and important for a while. Of course, the crowds of people going from one film to another for a week or one jazz session to another for a long weekend clearly demonstrated that others shared these interests with me. And in socializing with these people, what started out as simple enjoyment threatened over time to become a passion.

The general interest and involvement notwithstanding, one jazz session still stands out. Twenty years later, I would still identify it as the one that opened me up to a musical world that went beyond the immediate pleasure of listening. This was the first time I heard Courtney Pine play. He was young and relatively unknown, and I was fairly uninitiated into jazz. It was an afternoon session at the Cork Jazz Festival, not one of the major names. Somehow though word had got around that this was going to be a good session and it turned out to be a crowded house. The introduction. The expectation. The curtain. What an amazing look. The band, immaculately dressed in suits with a slight African edge. Courtney Pine holding the saxophone with love and respect. The sound. The band started to play, and from the first saxophone solo I was carried away. In hindsight it seems apposite that Pine was playing numbers from *Journey to the Urge Within*, because whatever he did that day got me in the gut. The sounds Pine made with a saxophone seemed to control my bodily response—in turn tightening and opening up my chest. But they also controlled what I was feeling and thinking. I was caught up and carried away. Why? How?

Although I could not play any instrument, I was mesmerized by what Courtney Pine did with individual notes. He seemed to go as low as any

instrument would allow, and as high, and sometimes both together. When he went low, I felt low, but a low that was full of life. It really did touch an urge within. And when he seemed to play two notes at once, I felt torn. When he went high, I could feel the whole crowd around me getting up with him. And he held notes for so long that they seemed to teeter on the brink and we worried about whether they would fall off or not. That tension was only released when he released it by taking a breath and moving on. The experience was full of sensual and emotional complexity. A very respectful pose paid tribute to the genre and the instrument while the playing seemed to stretch both to the point where they might break. Other jazz that weekend got me tapping, but nothing else moved me—sensually, emotionally, and intellectually—the way this concert did. It had layers and layers of sound, feeling, and meaning. Placed alongside many other jazz performances at the festival, it made statements about what was possible with jazz but what was not always happening. The performance seemed to make a young, rebellious statement about jazz and life that I identified with. And it did so beautifully, respecting tradition, recognizing the pain of change, but changing everything in the act. It also seemed to say something about being black and having African roots, that I could not understand, but with which I felt raw sympathy. So it was not just sensually complex but also complex in emotional and intellectual terms, taking us on a journey through our values and thoughts. Values and thoughts about jazz itself, what we expected from it and were prepared to give, about tradition and change, about race and culture, and about ourselves. And it did all this with music, very few words. In going with the precariousness of this performance, experience expressed itself.

Examples of Technology as Aesthetic Experience

The suggestion that we think of technology in the way I have just been describing my experience of jazz is not new but it is not commonplace either. So there is merit, in terms of the plausibility and clarity of the suggestion, in providing some brief examples from the literature of technology being treated as aesthetic experience.

Brenda Laurel's aesthetic account of interacting with computers argues that engagement is "a desirable—even essential—human response to computer-mediated activities" (1991, p. 112). Laurel draws parallels between the experience of theatre and the experience of computers suggesting that

"both have the capacity to represent actions and situations . . . in ways that invite us to extend our minds, feelings, and sensations" (ibid., p. 32) but that in order to do so they must first engage us. By that, Laurel meant that they must draw us into a first-person experience of the action, akin to the personal, self-reflexive model of action described by pragmatists. She also describes a number of qualities of engagement or first-person experience that characterize a good experience at a play or with a computer, including playfulness, agency, and the integration of a variety of sensory modalities in the action.

Janet Murray (1997), in her book *Hamlet on the Holodeck*, explores the aesthetic properties and pleasures of digital environments that are connected with the traditional satisfactions of narrative. She interprets experience in a number of narrative microworlds, from cyber-literature and cyber-drama to virtual-reality-mediated story telling. She is concerned with the kinds of stories they make available, the power of imagination they support, and the worthiness or otherwise of the rapture they sometimes evoke. For example, VR story telling raises issues concerning the power of sensory presence and sense of participation, meeting characters who sense our presence and respond to us, provoking plot changes by our actions while still sustaining the power to surprise and delight. In her analysis she identifies three characteristic pleasures of digital environments: immersion, agency, and transformation. She is very careful not to paint a utopian (or dystopian) picture, making it clear that digital media can be used to create trashy narratives—that are intrinsically degrading, fragmented, and destructive of meaning as well as the opposite.

Sherry Turkle, who may be best known for her analysis of identity in the Internet age, also provided an interesting cultural analysis of our relations with computers themselves. Turkle (1995) identified three distinct subcultures—hackers, hobbyists, and users—based on the variety of ways in which people make sense of computers and allow computers to make sense of them. Hackers and hobbyists are part of a modernist, technological aesthetic characterized by reduction and control. They get a feel for their computers by interacting with them as machines. The hacker's pleasure is in the thrill and danger of pushing large, complex systems to their limit in almost out of control projects. The opportunity to exercise their virtuosity in risky situations is a key part of their aesthetic. In contrast, hobbyists enjoy controlling small machines such as personal computers. Their pleasure is in

neatness and control. For a user, the computer is only of interest to the extent that it supports an application. In this context, the myth of the IBM is that it is like a car you could control. The myth of the Macintosh is that it is like a friend you could talk to. In much the same way as we get things done socially by negotiating with people, the Macintosh design entices us to get things done on our computers by negotiating rather than analyzing. The interface is a space for exploring, negotiating, and tinkering. The aesthetic is one of simulation, playing, and surface manipulation in blissful ignorance of underlying mechanism.

So if ours is not the first attempt to describe technology as aesthetic experience, what does it offer that is new? First, it suggests a clear continuity between aesthetic and prosaic experience that is not always evident when the focus is on computer games and cyber-drama. For our approach to work, we need to be able to make an aesthetic contribution to discussions of nurses using patient care record forms, people shopping on the Internet, and pilots using their procedure manuals. Second, in keeping with the spirit of pragmatism, we try to develop tools to be used in analyzing aesthetic experience with technology. Third, although our analysis, like some of those outlined above, does provide a means for discussing individual experiences, it also attempts to go beyond them to look at connections between individual experiences and their history and circumstances.

The Rhythmic Dance of Aesthetic Experience

In turning to aesthetic experience, Dewey brings to the fore the rhythms of life, the tension and release of engagement, and feelings of vulnerability in the face of our own needs and desires. Thomas Alexander's reading of Dewey's aesthetics suggests that "the rhythmic flow of life is the basis for our experience of meaning and value in the world" (1998, p. 11) and that it is in the rhythmic dance of resistance and release that "both self and world become imbued with felt, emotionalized, or expressive significance" (ibid., p. 10). The rhythmic dance of aesthetic experience has an internal, dynamic structure. Dewey identified closely related processes such as cumulation, conservation, tension, and anticipation to refer to the internal dynamics of experience.

Cumulation refers to the build-up that attends the temporal unfolding of an experience. As we saw above, when listening to jazz, emotionally this can be felt as tension or anticipation, intellectually as an increase in the

internal complexity of the work or as deepening of meaning. Without such a build-up there is no fulfillment, and without fulfillment there is no aesthetic experience. The experience of shopping for books over the Internet seems designed to be cumulative. Browsing, searching, putting goods into a shopping basket, going to a checkout, receiving an email confirming the order and further emails notifying of progress, and finally the box. The box has the supplier's name on the side and an amount of padding inside. Getting at the books, opening them, feeling and smelling them, ensuring that they are as ordered is slightly delayed by the sturdy packaging. It seems to both protect the books and build up the tension one last time before the experience is complete.

Conservation refers to the tendency to hold onto some of what has gone before, be it energy or meaning. For Dewey, oppositional forces—energies resisting each other—required to hold a physical entity together are also required to constitute a whole experience. Listening to jazz, movement in one direction is followed by movement in the other, and any resistance in this rhythmical pattern of movements conserves energy until it is released and expanded. Meaning can also be conserved as the meaning of a Journey to the Urge Within was conserved from number to number in that session. The character of Courtney Pine as visually and musically presented ensured that. It is similar to reading a book or watching a film; what happened in the past is carried in the present. We rarely need to go back over what went before in order to make sense of the present. The past is somehow embedded in the present, and Dewey argues that, by virtue of its compression in the present, it forces the mind to stretch forward to what is coming.

Tension refers to both the opposition of energies within the experience and between people involved in the experience. With respect to energies within the experience, Dewey is concerned with the rhythmic interplay of compression and release that gives life to experience. "Resistance prevents immediate discharge and accumulates tension that renders energy intense. Its release from this state of detention takes necessarily the form of sequential spreading out." (Dewey 1934, p. 179) Tension results from a compression of energy seeking release. As one form of energy seeks release another blocks it. The struggle between them is the source of tension. Clearly, for Dewey tension itself can be energizing. Freedom to act and constraints upon action need to be in balance to create tension, and therefore energy. Too much freedom or constraint, and by implication too little of both,

decreases the energy available for an activity. In aesthetic experiences, the tensions undergone and problems encountered deal with the reciprocal relationship between parts of the experience. They are concerned with the integrity of the experience itself.

Stores selling books on the Internet can take advantage of the energy entailed in tension. For somebody who is very interested in books, an Internet bookstore can be a potential Aladdin's Cave, full of unimaginable treasures. But most people can only afford to buy a limited number of books on each visit. The tension between desire and capacity is played out through personal recommendations and reviews that draw the buyer in. Putting books in your shopping basket but delaying the decision to buy, or which to buy, adds to the tension.

Anticipation can be seen as occurring in two temporal phases. The first occurs before the aesthetic experience as such has properly begun: the buzz going around a jazz festival that this newcomer is something special. The second relates to what happens during the aesthetic experience. Anticipation is strongly related to the continuity of experience discussed earlier. When an expectation is met, the past is conserved as if the anticipation is folded naturally into the experience itself. When experience does not come up to our anticipation, it is as if conservation is breached. This brings us up short and we find ourselves intellectually reflecting on the experience, teasing out failures of means as if they were separate from ends. Of course experience can exceed anticipation, in which case we find ourselves pleasantly surprised or even overwhelmed by the richness of the experience.

Cumulation, conservation, tension, and anticipation describe the internal dynamics of any integrated experience. While experience cannot be aesthetic without being integrated into a rhythmic dance of resistance and release, not all integrated experiences are aesthetic. What makes them aesthetic is the dynamic, always moving toward fulfillment:

> That which distinguishes an experience as aesthetic is conversion of resistances and tensions, of excitations that in themselves are temptations to diversion, into a movement toward an inclusive and fulfilling close. (Dewey 1934, p. 56)

This close should not be confused with an end point, some kind of fracture in the seam of experience. It speaks more to the quality of each moment of aesthetic experience than to a place in time, to the sense of unity in each moment and between that moment and all the others:

The form of the whole is therefore present in every member. Fulfilling, consummating, are continuous functions, not mere ends located at one place only. An engraver, painter, or writer is in process of completing at every stage of his work. He must at each point retain and sum up what has gone before as a whole and with reference to the whole to come. (ibid., p. 56)

Although analysis of the internal dynamics of aesthetic experience points up qualities that help me to describe and make sense of aspects of that jazz session with Courtney Pine or the experience of buying books on the Internet, there are limits to the perspective on experience that it offers. This analysis can be a useful tool for trying to understand why a particular experience is not as rich or fulfilling as it might be. It can also help us to answer questions about why a person would find a particular technology boring or the experience of interacting with the technology fragmented. However, as a description of the internal dynamics, its usefulness begins with the onset of an experience and ends with its conclusion, and there is more to experience than that. For example, for Dewey the rhythmic dance also connects aesthetic experience to its history and circumstances. The dance involves a continuous interplay between past, present, and future, each shaping and renewing the others:

. . . the principle of continuity of experience means that every experience takes up something from those which have gone before and modifies in some way the quality of those which come after. (Dewey 1938, p. 35)

At its best, continuity becomes growth or an unfolding of potentiality. We see this when continuity between experiences increases a person's power to perceive differences and to engage effectively with his or her environment. Certainly my engagement with jazz, which has developed over time into interest in the history, characters, traditions, philosophy, and form, has enhanced my critical perception of music. Realizing what can be done has made me more discriminating and less tolerant of what I see as mediocre music, by which I mean jazz that does not have an edge. More than that my experience of jazz demonstrated for me the potential for emotion and intelligence in music, in other arts, and in other activities. I feel dissatisfied if I am not passionately—emotionally and intellectually—engaged with whatever I am working on. It also showed me how it is possible to be respectful to tradition and passionate about pushing to the edge at the same time. In terms of unfolding perceptual powers, this results in impatience with fusions that are not respectful of the soul of jazz.

Are rhythmic dance and the unfolding of potentiality relevant only to experiences with art and music, or does it make sense to talk about technology in this way? For example, would these concepts help us to understand Murray's experience with digital literature, Laurel's with computer games, or a nurse's with an electronic patient record? When we turn to specific technologies, we could start by inquiring into the quality of engagement.

- Do the technologies connect or fragment experience and life?
- Do the technologies help to enrich our experience of what we already value, or do they impoverish it?
- Do the technologies facilitate unfolding potential, critical perception, and engagement?
- Specifically, does the Internet increase the potential for new relationships and new forms of communicating, or does it inhibit relating?

We can also explore the aesthetic implications of introducing new technologies into an organization:

- Does bringing technology into the organization help to connect values, emotions, and physical activities, or does it fragment them?
- Is it respectful to tradition—the meanings already given to activities and artifacts by workers in the organization—while at the same time offering the kind of edginess that can release potential?
- Does the introduction of new technologies respect the stories we tell ourselves about what is important while also allowing us to create new stories?

The last point, which emphasizes the relationship between tradition and innovation, can involve a delicate balance. For example, in my (John's) long experience as somebody committed to Macintosh computers, the introduction of colored casing for Macs did not respect the Mac tradition and the Mac values I cared for—it made them too much like children's toys—but the Titanium G4 Powerbook did, and it also expanded the universe of stories available to me as a Mac user. Its lightness and sleekness and its titanium casing fused adventures on a human-computer interface with adventures in space in an enchanting way. It made sensuous, emotional, and intellectual sense of the edgy Mac aesthetic that I had bought into over the years. It is worth noting that an aesthetic approach to technology is not against function in any way, just against an exclusively functional approach to understanding relations between people and technology. The Mac must

work and the software must function properly. The point is that the analysis should not stop there.

Experience as Simultaneously Aesthetic and Ethical

Deborah Hicks (2000, pp. 231–232) draws attention to the closeness of aesthetic and ethical experience in Bakhtin's work, both leaning on a rich, engaged responsivity to the other:

> Responding, in Bakhtin's early essays, entails richly seeing. Bakhtin contrasted the kind of seeing that might be characteristic of scientific inquiry with artistic or aesthetic contemplation. In the special case of aesthetic seeing the artist forms a felt and valuational relationship to the object of her activity. . . . Aesthetic contemplation entails seeing this separate center of value as unique and then forming a response to it from the special value position that is one's own. This kind of seeing can entail strong feelings; minimally, it requires more than an instrumental or objective response.

The close proximity of aesthetic and ethical aspects of experience should not be too surprising. From a pragmatic perspective, both aesthetic and ethical experience derives from the feelings, emotions, and values that populate responsive relations with others. Aesthetic and ethical experiences are both aspects of the consummation of self in an other. With respect to aesthetic experience, Hicks (ibid., p. 231) puts it as follows:

> As individual persons come together in an experiential moment, each reflects particularistic value centers. If this moment is one in which the individuals are responsive (answerable) to one another, an enriched experience is created. The particularity of one value center enhances that of another; as Bakhtin describes things, one value center (one individuated subject) envelops another, enriching the other with an outside perspective.

One's ethical sensitivity to an other is intimately related to the creative act of authoring self in other. One center of value, valuing another as an other is an act of authorship that is both aesthetic and ethical. Aesthetic seeing creates another consciousness (or center of value) and completing or finishing off this other to whom one is committed is an answerable or responsive act. Aesthetic experience is created in prosaic moments of answerable engagement, which are made possible by the aesthetic experience of completing the other. Out of the particularities of a dialogical relationship come both—and inseparably—the aesthetic experience of absorption in an other and the ethical experience of answerability to the other.

For Bakhtin, then, enriched, aesthetic experience is created from moments of answerability, the weight of which is located in the relationship between self and other in that moment. For him, the weight of lived moments of experience is felt in answerable engagement with a responsive other. According to Dewey, aesthetic experience involves the interpenetration of self and the world of objects and events, or self and other, according to Bakhtin. This interpenetration of two centers of value, involving what Hicks (2000, p. 231) calls "richly seeing," entails felt commitment to the other, seeing the other as a center of value.

The pragmatist aesthetic approach to understanding relations between people and technologies works best within a worldview characterized by creativity and dialogue. We are not presented with aesthetic experiences fully formed rather we make something of our encounters with jazz or technology. In the sections that follow we describe the process of making something out of what is given as situated creativity and we describe the world that makes situated creativity possible as dialogical.

Experience and the Creativity of Action

For pragmatists, creative action is always embedded in human situated freedom; the freedom to make something out of what is given, to construe and respond to the situations that one inevitably meets (Joas 1993, 1996). With creativity at its center, it might be useful to think of pragmatist ideas of action and experience as like the prosaic creativity of children playing. In play, children are not interested in achieving unequivocal ends and they overcome problems by imagining new ways of acting or by inventing new descriptions of the situation in which they find themselves. In the pragmatist model of action, the relationship between means and ends is radically reformulated such that action is both means and ends. Children play with paints not just to create pictures, but also to enjoy the experience of making colors and marks, and to have the tactile pleasure of feeling the texture of paint on their fingers. The child's experience of paint is that it is both useful and enjoyable. The two aspects are experienced as a complementary whole, part of the qualitative immediacy of a situation, with no need to separate them. Play, even adult play, is a context in which these unnecessary dualities—means and ends, use and enjoyment—are resolved. For example, people generally don't make love solely to reproduce. The action is useful,

enjoyable, and creative, and the means and ends—making love—are indistinguishable. Play is also a very mindful model of action. Children and adults at play can imagine a variety of possible courses of action even while playing, and demonstrate a quiet readiness to experience and to round off experience. Both approach situations not in service of pre-set goals but creating goals and the means to achieve those goals in the height of their engagement with the world.

Let us think for a moment about how these ideas relate to our experiences with technology. People make practical distinctions between those technological tools that are simply a means to an end, where the technology is mere material at the disposal of our intentions, and those that can be both means and ends. For those that are mere means to an end, the potential complementarity of use and enjoyment is lost. We all make the distinction in different places. For some of us, a spreadsheet is merely a means to process numerical data: for others it a very enjoyable way of making sense of situations and events through creating and viewing patterns. For some, a chat room is merely a means of contacting people or getting information on a particular topic: for others, it is almost a way of life. While the boundary is in different places for different people, it is clear that the difference between what goes on one side of the line and what goes on the other can best be characterized in terms of the potential the technology offers for engagement in what would be, for us, a meaningful experience. To make space for this kind of conceptualization of experience with technology we have to be able to see potential in everything and be open to surprise at any time. This suggests a view of the world as an open, unfinalized, and unfinalizable place where every person and thing is always a dynamic process of becoming, always open to the future.

From Being to Becoming

With his commitment to unfinalizability, Bakhtin brings a deep sense of mystery to his treatment of experience, which is only challenged by a knowingness that forecloses on potential, the knowingness of stability and permanence that is "being." If I definitely know that a telephone is an auditory medium of communication, I miss the potential for making it a text-based or pictorial medium. Bakhtin's commitment to unfinalizability embodies values central to his thinking such as his concern for surprisingness, potentiality, freedom, and creativity. For Bakhtin (1984, p. 166),

"nothing conclusive has yet taken place in the world, the ultimate word of the world and about the world has not yet been spoken, the world is open and free, everything is still in the future and will always be in the future."

Bakhtin's ideas about the world as open and unfinalizable resonate with ideas about matter as becoming and alive that we find in Ilya Prigogine's work on the thermodynamics of non-equilibrium systems. Prigogine's work, which is given an accessible treatment in *Order Out of Chaos* (Prigogine and Stengers 1985), argues that molecular systems have an irreducible element of unpredictability. They have a capacity to surprise that is not due to any shortcomings in measurement and that will not be diminished by any increases in knowledge. Molecules in far from equilibrium systems respond in exquisitely surprising ways to tiny shifts in the parameters of their existence and in relation to each other. Perhaps the best way of putting it is that they self-organize in ways that we could hardly have imagined. Prigogine and Stengers give as an example the appearance of chemical clocks. When we think of chemical reactions, we imagine molecules floating through space, colliding with each other, and reappearing in new forms. A chemical clock's behavior is different. Prigogine and Stengers (ibid., p. 13) put it as follows: "Oversimplifying somewhat, we can say that in a chemical clock all molecules change their identity *simultaneously*, at regular time intervals." It is as if they all simultaneously change color or shape following the rhythm of the chemical clock reaction. This is a description of matter as constantly becoming, a kind of non-deterministic order based on communication, that is characteristic of biological and social systems. In non-equilibrium systems, it is not just that it is impossible to calculate the trajectory of molecules rather that trajectory is not an adequate concept for their non-deterministic, irreversible behavior.

The important point for us about Prigogine and Stengers's and Bakhtin's work is that it describes what we tend to miss in the world because we have already finalized it in our minds. We tend to close our minds to the potentiality of the physical, biological, and social world, having already decided what everything is. Because of this, we fail to notice the essential creativity of our relationship with every "thing" that is. In a world that is always becoming, we create the thingness and eventness of the world, even physical reality that "is revealed to us only through the active construction in which we participate" (ibid., p. 293). This is not some kind of utopian statement about human creativity, it is simply a recognition that we have a hand

in creating the world in which we live—good, bad, and indifferent. We exercise our creativity by giving shape to a world that is always open and unfinished. The material world described by Prigogine and Stengers is multiple, temporal, and complex, "seething and bubbling with change, disorder, and process" (ibid., p. xv). It, like Bakhtin's description of experience and Dewey's allusion to children's play, presents a world always becoming, and invites us to see technology as always becoming.

Embracing unfinalizability ensures that the pragmatist approach to the creativity of human action is not undersold. Pragmatist creativity is too easily read as a process of trying out different ways of thinking and acting that already exist. This approach to creativity, as revealing what is already given, seems natural in a view of the world as closed and stable where nothing is created whole cloth. However, as we have already seen, the pragmatist's worldview is dynamic and open and accommodating of the emergence of radically new ways of thinking and acting. In a world of change, the same action can have different meaning and significance, as the context is always different. In an open world, all action is creative, a fresh use of intelligence producing something surprising and new every time. Bakhtin's way of rendering action as creative is to locate unfinalizability in ordinary everyday processes such that they are always open to surprise, potential, and creativity. Thus, action retains its eventness by always being open to the future. It is never concluded, the potential it creates is always in the future, and its meanings are indeterminate. In such an open, free characterization of human action, action is always potential and always becoming, constituted dialogically in responsive relations.

Dialogicality

If pragmatist aesthetics requires at its center a view of action as situated creativity in a world that is always becoming, pragmatist creativity in turn requires a view of the world and the things in it as less stable and less entitative than many epistemologies allow. With the emergence of relativity and quantum theory, Bakhtin reflected on the possibility of any unity or truth in the face of what appeared to be constant change. In the new world being described by the physicists, unity could not be assumed. Following their lead, Bakhtin argued that in this world, nothing (or even no-thing) *is* in itself. By this he meant that any unity is always a matter of work and is

always accomplished relationally or, to be more precise, dialogically. As Holquist (1990) described it, Bakhtin's appeal to dialogue is an attempt to develop a theory of knowledge for a time when matter is understood in terms of relativity and when coincidence between sign and referent cannot be assumed.

When we see molecules as separate entities interacting with each other, matter as static, a computer as an information-processing machine, the human body as bounded by the skin, an organization as composed of its members and resources, a community as already established, and social structures as pre-existing action into them, we are thinking monologically. All reification or finalization, whether it has to do with physical, biological, or social systems, is monological. In contrast, thinking dialogically involves being open to the relational processes that constitute molecules, bodies, communities, and personhood. Dialogics is sensitive to the particularity of felt life and to individual agency, even the agency in matter that Prigogine and Stengers allude to. Dialogically, cells and cell walls are understood in terms of the relations that constitute them, the cell wall seen as a process mediating between inside and outside. Dialogically any unity is composed of many voices in unfinalized conversations that cannot be reified monologically.

Dialogics and Dialectics

Bakhtin contrasts his dialogical approach with dialectics, which we met when reviewing Lave's work in chapter 2. Lave's dialectical account of cognition in practice, which has been quite influential in Computer-Supported Cooperative Work, describes activity in terms of the irreducible unity of person-acting-in-a-setting. Although dialectical accounts such as Lave's are oriented toward the interactions between people and the settings in which they find themselves, Bakhtin dismisses them as lifeless because they reify individual agency and particular evaluations diminishing the potential for real surprise and creativity. From the perspective of dialogics, the world is a lived event. Dialectically it is the mechanical contact of oppositions, things rather than people. The following quote from Bakhtin (cited on p. 57 of Morson and Emerson 1990) expresses his position on dialectics and clarifies what is original in dialogics:

> Take a dialogue and remove the voices (the partitioning of voices), remove the intonations (emotional and individualizing ones), carve out abstract concepts and

judgments from living words and responses, cram everything into one abstract consciousness—and that's how you get dialectics.

Any form of knowledge that takes the open-ended dialogue that is nature as described by Prigogine and Sengers and human activity and experience as described by Bakhtin and turns it into a monologic summary misrepresents its unfinalizable spirit. This is one of the reasons that Bakhtin turns to the literary novel for his exemplification of aesthetic experience—it is a dialogical methodology and embodies a dialogical approach to truth and unity.

If we describe John's experience at the Courtney Pine jazz session in terms of the properties of the improvising jazz musician, the emotional potency of music, and John's character or personality, we are producing a monological account that reifies particulars and particular people to types. If, however, we do it in a manner that is open to surprise and potential, that is sensitive to the different voices involved and to the emotional intoning of actions, and that makes space for emerging subjectivities—as a novel can—we are oriented toward a dialogical worldview. It would also be very easy to describe a nurse interacting with a patient and mediating her interactions with a patient care record in monological terms. It would be much more difficult to attend to the feeling, emotional responsivity between one particular nurse and one particular patient and between each of them and the variety of medical and lifeworld voices that people their interactions. But that is the kind of orientation that supports aesthetic experience, a dialogue between particular selves and particular others.

Dialogue, Self, and Other

In a dialogical worldview, understanding or making sense of an experience occurs in the tension between self and other. I only make sense of my self in terms of how I relate to others and to my own history of selves—the way I was and the way I would like to be—which are, like these others, always already in the present. In his introduction to Bakhtin's *Art and Answerability* (1990), Holquist notes that for Bakhtin aesthetic experience always involves a person perceiving an object, a text, or a person as something actively fashioned into the whole that it is. As the object, text, or person is not given as a whole but made whole in relational activity, consummation of the experience is treated as a shaping or finishing-off. Indeed Bakhtin goes so far as to treat it as an act of authorship. His emphasis here is on the unique perspective of the person involved in creating aesthetic consummation, the

person perceiving, where perception is always from a uniquely situated place in the overall structure of possible points of view. The salient point in Bakhtin's characterization of aesthetic experience is that each person occupies a situation in existence that it is his alone. Perception from that situation is perception from a unique perspective. Bakhtin refers to this uniqueness of vision as a person's "excess of seeing," which is defined by the ability each of us has to see things that others don't see.

The uniqueness of our perception leads ineluctably to the aesthetic consummatory experience that prefigures all others, the consummation of ourselves in others. The paradox of our uniqueness, our excess of seeing, is that we are fated to need the other to consummate ourselves. As we all occupy a unique place in existence, we can share surroundings but not a field of vision. Each of us can appear in the other's field of vision but not in our own. I can look at my own body, but I cannot see myself doing so. What I can see about you that you cannot see about yourself constitutes my excess of seeing or my surplus vision over you. This surplus allows me to complete an image of you, to create a picture of the world in which you are located for me. For Bakhtin, this is the act of authorship. As I provide form and create an image of you, I relate to you as an author relates to a hero. From my excess of seeing, I create another whole consciousness, and I relate to this consciousness as a center of value different from my own.

Holquist (1990, p. xxix) describes the process as follows:

> . . . the other is perceived as in the world, in an environment, while "I" exist in a world that enfolds me in a unique relation to my ends and is thus experienced as having an intimacy and reality different from that of the environment in which others are consummated as finite entities.

According to Morson and Emerson (1990, p. 185), this is the prosaic, everyday, aesthetic act on which more noticeable acts depend:

> This essentially aesthetic act of creating such an image of another is most valuable when we seek not to merge with or duplicate each other, but rather to supplement each other, to take full advantage of our special fields of vision. In daily creativity—the real prosaic creativity on which more noticeable creative acts depend—you and I formally enrich each other and the world. Properly performed the aesthetic act in daily life involves a reassumption and a reconfirmation of one's own place after the other is encountered.

The self is not reducible to the temporal and spatial constraints that make consummation of the other possible. From its own perspective, the self is

not located in space and time in the same way as the other. The other is in the world of beings and things, occupying finite space and time, consummated as a finite entity. Perceived in this way, there is a completeness, uniqueness, and unity to the other. From the perspective of the self, the other is so rounded out that it is a consummated, self-sufficient whole. In contrast, the self cannot see itself in that way. It is tied up in the incompleteness of its own story, unconstrained by time and space, unsettled. It suffers from a lack of vision with respect to itself. The excess or surplus of the other is required to make up for the self's lack and to consummate the self. The aesthetic experience for the self requires the other but also a return to self. It centers on the self, returning to itself to take advantage of its own surplus and outsideness. In this moment, the self is authored. Consummation of self entails a dialogue with the other—a meeting of two consciousnesses—that confirms the unique perspective and value of the self, allowing the self for a moment to experience unity and completeness.

In *Author and Hero in Aesthetic Activity*, Bakhtin portrays the relationship between the author of a novel and the hero in a novel as a metaphor for social relationships, particularly self-other relationships. He describes the author-hero relationship as a meeting of two separate consciousnesses. In terms of the aesthetic event or experience, he places great emphasis on seeing the other as separate from oneself—the hero as separate from the author, for example. Without this separation, it is not possible to treat the other as a unique center of value and to respond appropriately to him. Relationships therefore can be consummated only when those involved treat each other as separate centers of value. Hicks (2000, p. 234) suggests that Bakhtin, in his description of the relationship between author and hero, foregrounds "the ways in which others create the conditions for selfhood through the particulars of their affective and valuational response." For Bakhtin, the relationship of one consciousness to another consciousness, as an other, is constitutive of aesthetic experience.

The Sensuality of Self-Other Relations

It is important to see the sensuousness in Bakhtin's portrayal of one consciousness relating to another. For example, Hicks draws our attention to the sensuousness of Bakhtin's depiction of the constitution of selfhood in social relationship. She points to the emotional tone or shading that enables or "images forth" individuality. She makes her point with a

quotation from *Art and Answerability* that evokes feelings, emotions, touch, connection, and separation:

> As soon as the human being begins to experience himself from within, he at once meets with acts of recognition and love that come to him from outside—from his mother, from others who are close to him. The child receives all initial determinations of himself and of his body from his mother's lips and from the lips of those who are close to him. It is from their lips, in the emotional-volitional tones of their love, that the child hears and begins to acknowledge his own *proper name* and the names of all the features pertaining to his body and to his inner states and experiences. The words of a loving human are the first and most authoritative words about him; they are the words that for the first time determine his personality *from outside*, the words that *come to meet* his indistinct inner sensation of himself, giving it a form and a name which, for the first time, he finds himself and becomes aware of himself as a *something*. (Bakhtin 1990, pp. 49–50)

The self is constituted in the tones, lips, and responsivity of the others, as much as in their words. The elements of a dialogical relationship cannot be separated from each other. No element is abstracted from the aesthetic experience and reified as the signifier of dialogue, separate from the others. Unlike those who treat meaningful experience as a text, Bakhtin does not accept that the eventness of an event, the livedness of experience, can be reduced to text. Experience must be understood as an event, the eventness of which carries the weight of emotion, volition, and value. Devoid of that weight, as it is when treated as an object of cognition, experience is hollow. It is not lived experience at all. The moment of experience is lost.

There is a sense, in Bakhtin's description, of the weight of experience being in the body, or the dialogues within and between bodies: "The child receives all initial determinations of himself and of his body from his mother's lips. . . ." Bakhtin pays great attention to the embodiment (or, as Morson and Emerson put it, the enfleshment) of experience. He carefully draws attention to the physicality of bodies in a place, and to dialogue occurring between bounded entities. The body plays a pivotal role in dialogizing experience. The awareness of difference between one's own pain and discomfort and another's pain described by that other affirms a boundary between self and other. I can only imagine your pain; I can never experience it. The observable materiality of the beginning and end of other bodies is contrasted with the imagined or potential beginning and end of our own in an unsettling inner dialogue. Here, in a partial contrast with the pain example, I can observe other people being born and dying but I can

only imagine my own birth and death. Another border, another dialogized experience, and these borders can be interpersonal or intrapersonal. Here is the weight of moment-to-moment, dialogical experience that Bakhtin wants us to notice. An embodied self, an organism participating in life, has no choice but to act, and no alibi for not acting, for not engaging, given its stake in all that is happening.

Conclusions: Aesthetic Experience and Technology

We began this chapter with a reminder from Geertz (1986) that cultural analyses must engage with felt life or experience if they are to connect with people's concerns; we ended it with an evocation of the sensory and emotional intimacy of relationships between particular selves and others. The pragmatic approach to experience is an invitation to hold up this intimacy and the rhythmic dance of aesthetic experience as the paradigm for experience with technology.

Following Dewey and Bakhtin, we also see the pragmatist position as a political act, the proper guard against the kind of reification of human-computer relations that emerge from many functional, sociocultural, and systemic accounts. It involves a series of commitments outlined in this chapter, including the following:

- a sustained commitment to the particularity and agency of emotionally and volitionally intoned action
- people doing and suffering, striving, loving, and enjoying, acting and being acted upon—a language that brings us into the realms of felt life
- the particular response formed in relation to and with others from which a sense of self emerges
- people making acts their own personal experiences through the particularities of interpreting, feeling, and making value judgments.

In order to take full advantage of the pragmatist approach to aesthetic experience in our inquiry into technology, we must begin to see technology in terms of situated creativity and dialogicality. This may not be very easy for designers and analysts who see their activity as bounded by the technological system with which they are concerned. Seeing technology as aesthetic experience requires that we see any boundaries between humans and technology as constituted by the dialogical relations sustaining them

and that we see human-technology relations as always open and becoming. This is not presented as a utopian perspective on technology. We are aware that technology and even the language of becoming and dialogue can be used to enthrall and mystify as much as to clarify and open us up to the potential and surprise that we might otherwise miss.

Finally, we see the pragmatist position as a practical act. As well as putting the basic concepts for describing felt experience in place, it provides a methodology for making these concepts useful in people's lives. It offers aesthetic experience as the paradigm that illustrates how rich all experience can be because of its zestful integration of all the elements of ordinary experience. In this chapter we analyzed experience from two perspectives: (1) from the perspective of the internal dynamics of experience, which are described in terms of a rhythmic dance of cumulation, conservation, tension, and anticipation, and (2) in terms of the connectedness of aesthetic experience and its history and circumstances. Both provide us with tools for looking at experience to see where it falls short of what might be possible, tools which in this chapter have been used to generate indicative questions about people's experience with technology. In the next two chapters we will take this practical aspect a step further by inquiring into how an experiential analysis of people's relations with technology would look.