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## **Emotion, Reason, and Information and Communication Technologies in Education: some issues in a post-emotional society**

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**ABSTRACT** In this article, the authors work across issues of information and communication technologies (ICT) in education to explore the meaning of emotional experience in the context of online learning. In light of Mestrovic's (1997) notion of a 'post-emotional' society and the increasing role of ICT in education, it is argued that educators need to rethink, modify, or extend some of the assumptions made about the relationship between emotion and reason (e.g. as these assumptions are expressed in the traditional binaries between body and mind, and emotion and reason). The argument put forward is that opportunities and consequent decisions and actions about particular pedagogical practices and philosophies must engage with an analysis of the meaning and implications of these assumptions for learning and learners.

There is an abundance of recent writings emphasizing the importance of emotion in all aspects of life (Stocker, 1996; Campbell, 1997; Barbalet, 1998; Boler, 1999; Damasio, 2003). This comes in response to the systematic 'neglect' of emotion (Williams, 2001) in western thought and the problem with the Cartesian mind/body duality (Descartes, [1637] 1970). This neglect is based on a tradition of thinking which has sought to divorce body from mind, nature from culture, reason from emotion, and public from private (Williams & Bendelow, 1996). In the past 20 years there has been an outpouring of research on the role of emotions in virtually all disciplines including philosophy, sociology, psychology, biology, history, and anthropology (Zembylas, 2002, 2003a). The study of emotion has also become fashionable in research in

education, with such concepts as 'emotional intelligence' (Goleman, 1995), 'feeling power' (Boler, 1999), and 'the emotional practice of teaching' (Hargreaves, 1998).

The epistemological separation between emotion and reason, or private and public, characterizes a liberal, modern world-view (Unger, 1975) and was introduced cogently by Descartes and taken up by Enlightenment scholars who wanted to cast doubt on any kind of irrationality (including emotion) that did not use the reason of 'science'. This notion has been perpetuated in the discourses of science and technology that pervade western cultures. From within this perspective, reason is seen as 'uncontaminated by passions', which brings us (the public) together in distinction from our 'irrational' sense impressions and 'dangerous' desires (the private) (Nicholson, 1999).

Recent scholarship, however, emphasizes that emotion and reason cannot be separated and that these two concepts have only been separated in theory and the writings of some scholars. For example, Abowitz (2000) maintains that, 'Liberal reason, as constructed against emotion, has come to mean that which is antithetical to passion or feelings' (p. 82); however, as she argues, community relationships necessitate the integration of affective elements, and involve 'the affective domain as well as the logical thought patterns of weighing evidence and evaluating statements and ideas' (p. 82). Abowitz does not dichotomize reason and emotion; also, she does not romanticize the role of emotion. She reiterates the inescapable role of emotion in schools, just like in other arenas of social life: 'if we were to take the affective seriously, schools would be places where the time and scale of the institution would allow for the kinds of work that facilitate the full expression of feeling and thinking that should accompany learning and teaching' (2000, p. 144).

There are other discourses that have never separated emotion and reason, e.g. many religious discourses and the discourse of love and caring. Also, there are cultures in many parts of the world that do not separate emotion and reason, e.g. some Native American cultures. The ethnographic studies by Lutz (1988), Lutz & Abu-Lughod (1990) and Rosaldo (1984) in non-western cultures emphasize how emotion and reason are cultural and historical. These studies trace the historical, political, and cultural production of 'emotion' and 'reason' as oppositional constructs. Thus, it is important not to discuss emotion as something that we have 'neglected', that produces nostalgia, and that should be recuperated; such a position would simply perpetuate the binary emotion/reason.

In a society where information and communication technologies (ICT) play an increasing role in contemporary forms of emotional experience in everyday life (Giddens, 1991; Williams, 2001), the following questions come to the foreground: (1) how do learners talk and write about emotion and reason online? In other words, is the binary emotion/reason maintained in learning environments involving ICT? and (2) what are the implications of various descriptions of emotion and reason on learners within ICT contexts? These key questions highlight the meaning surrounding emotion and reason at the

beginning of this new century in western societies and defy easy answers. Our goal in this essay is to challenge some of the taken-for-granted assumptions made in debates about emotion, reason, and ICT in education. We want to argue that taking emotion as being in opposition to reason is highly problematic. Although there is much to be criticized in the contemporary elevation of emotions – e.g. as this being another way of perpetuating the dichotomy between emotion and reason – there are also dangers in any simple rejection of their place in education.

In this article, we work across issues of ICT, cyberspace, and education to explore the meaning of the affective experiences of teaching and learning as subject to social and technological change. As a number of recent writers have suggested in other disciplines, these social and technological developments have the potential to critically reconfigure the relationship between the body, gender, and self-identity, as well as the nature of social interaction and affective experience (Featherstone & Burrows, 1996; Williams & Bendelow, 1996; Holstein & Gubrium, 2000; Gubrium & Holstein, 2001). In light of these developments, we believe that educators need to rethink, modify, or extend some of their assumptions about emotion and reason in the context of ICT in education. Opportunities and consequent decisions and actions about particular pedagogical practices and philosophies must engage with an analysis of the meaning of these assumptions about emotion and reason in contemporary teaching and learning contexts. A particular focus will be placed on how emotion and reason play out within ICT learning environments and online education.

### **The Historical and Cultural Production of Emotion and Reason as Oppositional Constructs**

To develop a historicized account of emotion and reason is challenging because, in western culture, emotion has been most often excluded from the Enlightenment project of truth, reason, and the pursuit of knowledge (Boler, 1999). Belief in the opposition between emotion and reason has masked as much as it has revealed about the nature of this relationship (Williams, 2001). The roots of this belief have rested on the associations among emotion, nature, passivity, and femininity and can be traced in the exclusion of emotion from reason throughout western philosophy, from Plato to Descartes, and from Kant to Hegel. Emotions have tended to be dismissed as private, irrational, and dangerous; thus, they needed to be ‘harnessed’ and ‘driven out’ by the man of reason (Lloyd, 1984). Seen in these terms, rationality becomes ‘masculinized’ (Bordo & Jaggar, 1989) and an ideology devoid of feeling, empathy, and compassion (Bauman, 1989).

Cartesian dualities then – divisions such as reason and emotion, mind and body, head and heart, fact and value, the public and the private – are central to the dominant western viewpoint and result in part from the effects of the scientific and technological developments that find emotion as a corruption (of

reason) that needs to be transcended. Even to the present day, emotions are seen to be the very antithesis of the detached scientific mind and its quest for 'truth' and 'objectivity' (Williams, 2001). Reason, on the other hand, is regarded as indispensable for the acquisition of truth. Such a view, according to Williams (2001), neglects that 'rational methods of scientific inquiry, even at their most positivistic, involve the incorporation of values and emotions' (p. xvi). Instead of repressing emotion in western epistemology, Jaggar (1989) argues that it is necessary to fundamentally:

rethink the relation between knowledge and emotion and construct conceptual models that demonstrate the mutually constitutive rather than oppositional relation between reason and emotion ... the ideal of dispassionate inquiry is an impossible dream but a dream nonetheless or perhaps a myth that has exerted enormous influence on Western epistemology. Like all myth, it is a form of ideology that fulfills certain social and political functions. (p. 157)

Recent feminist and postmodern writing has sought to reopen debates on the relationship between emotion and reason and has challenged the Cartesian divisions (Lutz & Abu-Lughod, 1990; Campbell, 1994, 1997; Boler, 1999). Some postmodern theorists have argued that truth and knowledge themselves cannot be free of emotional underpinnings, 'even though it may be pretended by those who espouse modernist approaches that their route to truth and knowledge is dispassionate, scientific and objective' (Lupton, 1998, pp. 3-4). For example, Abu-Lughod & Lutz (1990) argue for a perspective that views emotion as 'discursive practice'. This means that the words used in relation to emotions are not assumed to be simply names for 'emotion entities', describing preexisting things or coherent self-characteristics. Rather, these words are seen as 'actions or ideological practices' serving specific purposes as part of the process of creating and negotiating reality (Lutz, 1988, p. 10). A focus on emotion as discursive practice, argue Lila Abu-Lughod and Catherine Lutz, 'leads us to a more complex view of the multiple, shifting, and contested meanings possible in emotional utterances and interchanges, and from there to a less monolithic concept of emotion' (1990, p. 11). Selfhood and emotions are understood then as properties, not of mental mechanisms but of conversations (Rose, 1998). This approach recognizes the constituted nature of emotion and acknowledges the power relations inherent in emotion talk, because:

power relations determine what can, cannot, or must be said about self and emotion, what is taken to be true or false about them, and what only some individuals can say about them ... The real innovation is in showing how emotion discourses establish, assert, challenge, or reinforce power or status differences. (Abu-Lughod & Lutz, 1990, p. 14)

In addition, some recent neurobiological research provides evidence that the cognitive and affective mechanisms cannot be separated and that emotional responses are linked to cognitive functions in the brain; emotions, from this perspective, 'guide' reason, by providing it with direction, purpose, and

priorities (Damasio, 1994, 1999, 2003; LeDoux, 1998, 2002). Also, studies in sociology and psychology highlight that the oppositional relationship between reason and emotion needs to be reconsidered in light of their mutually constitutive characters (e.g. Lazarus, 1991; Kemper, 1993). For example, the notion that reason, ethics, decision making, and cultural norms involve the incorporation of values and emotions emphasizes how both emotion and reason are mediated by psychology and culture (Stocker, 1996). To these sources, we may add other attempts to rethink emotion and reason, both literally and metaphorically. Lakoff (1987) and Lakoff & Johnson (1980, 2000), for instance, have demonstrated the multiple ways in which meaning, understanding, and rationality arise from our bodily experiences, including our emotional relationship to the world.

The relationship between emotion and reason takes on a different meaning when considered within a technology context. Oftentimes ICT, technological devices, machines, and online education are considered as 'too mechanical', thus full of reason but without emotions. The relationship with the machine is often viewed as impersonal, unemotional, and insensitive. How can the machine (e.g. the computer) express feelings and emotions and, even more complicated, how can humans communicate emotions via the machine? Particularly in online education, where the majority of interaction takes place in a text-based environment, ICT comes to exemplify the power of written discourse in communicating with others and in a sense feeling the other via the machine. As our discussion will soon show, feeling the other and expressing emotions online takes new form and shape, yet it is possible. Furthermore, we will argue that reason and emotion are indeed intertwined in participants' attempts to make sense of the other within an online learning environment.

If emotion and reason are so thoroughly interrelated, then how rigid can their division really be? What role, moreover, do emotions play in reason and rationality (Crossley, 1998)? What is the role of ICT in shaping interaction and setting the rules for reason and emotion to be manifested within various contexts? To argue, for instance, that emotion needs to be included in rationality is to assume that rationality is not already shaped by emotion. When scholars criticize 'people', 'technology' or 'online learning', for being too 'rational' and 'unemotional', they, in fact, perpetuate the dualism of mind and body, reason and emotion. Many writers (in educational circles too) recommend that emotion be brought back into social relations, as if it were possible to isolate thinking from feeling. However, as our earlier historicized account of the relationship between emotion and reason clearly shows, systems of reason and rationality have always been shaped by emotion, religion, belief systems, and power dynamics (Rose, 1990, 1998). The separation of reason and emotion perpetuates the assumption that reason is somehow objective and impartial; this separation does not recognize that systems of reason (and emotion) are products of culturally and historically specific power relations.

Thus, to chastise positions that may be considered responsible for the 'neglect' of emotion in rationality or in the field of education is to assume a

universality and naturalness for something which is culturally and historically specific. The importance of emotion per se has no essential meaning. There is no reason to argue that emotions *should* be present in teaching and learning (since they already are). It would be more productive, for instance, to ask what makes some emotions present and others absent. And this is particularly important in the new era of ICT and online education. What are the affordances of ICT that allow for some emotions to be present while discouraging other kinds of emotions to be manifested? In emphasizing the need for emotion to be included in education or online learning, scholars and educators reinforce the same dividing lines as the modernist/liberal theories, and they perpetuate the same narrow assumptions that emotion is associated with what is repressed and reason with that which deserves to be public.

A potentially fruitful way out of these distinctions and Cartesian divisions is to view 'emotion as performative' (Zembylas, 2003b). This requires us to focus not only on what emotional utterances *mean*, but also on what they *do*. What components of emotion they connect and what connections they do not permit; how they enable humans to feel, to desire, and to experience disappointment and fulfillment. In brief, this view theorizes emotion as 'performance'. A performance that in the online environment is inescapably shaped and afforded by ICT. On the one hand, emotions motivate and accompany the performances of subjectivity; on the other hand, emotions are constituted, established, and even reformulated by these performances. The notion of 'emotion as performative' emphasizes the active, emotionally expressive body, as the basis of self, sociality, meaning, located in specific cultural and historical realms of life. Seen in these terms, emotions provide a link between traditional divisions of public versus private and body versus mind. The challenge, therefore, is a critical exploration of the link between emotion and reason in contemporary social life, including the arrival of cyberspace and the transformation of emotional experience through ICT, together with changing styles of learning and teaching at the beginning of twenty-first century capitalist society.

### **Living in a Post-emotional Society?**

Mestrovic (1997) has proposed the concept of *post-emotionalism* to argue that 'contemporary Western societies are entering a new phase of development in which synthetic, quasi-emotions become the basis for widespread manipulation by self, others, and the culture industry as a whole' (p. xi). The 'post-emotional type', according to Mestrovic, takes cues from peers, the media, and cyberspace as to when he or she 'should rationally choose to exhibit a vicarious indignation, niceness or other pre-packaged emotions', yet he or she is 'unable to put these emotions into appropriate action' (p. xii). The result is a 'mechanization of emotions' (Mestrovic, 1997), or, as Baudrillard (1988) wrote, the 'cryogenization of emotions'.

In a post-emotional society a 'new hybrid of intellectualized, mechanical, mass produced emotions has appeared on the world scene' (Mestrovic, 1997, p. 26). Post-emotionalism is the deliberate manipulation of emotions so as to promote harmony, avoid negative emotions and present everything in a happy way. The 'McDonaldization of emotions' represents the 'pre-packaged, rationally manufactured emotions – a "happy meal" of emotions – that are consumed by the masses' (Mestrovic, 1997, p. xi). Post-emotionalism, Mestrovic continues, occurs when individuals become blasé, allergic to involvement yet intelligent enough to know that events are significant. He also claims that in the past, people reacted with deep emotional empathy or antipathy to such events, but in today's post-emotional society they respond with ambivalence and intellectual rationalization. The viewer is bombarded by commercials that continually highlight the falsification of emotions. In the modern world, Mestrovic asserts, emotions and feelings are at the service of media power and greed for the sake of encouraging mass consumption, as service employees insincerely exhort us to 'have a nice day'. The implications of this packaging of emotion are more pernicious, for now it is the human body itself that is displayed as a consumer product.

The result, from the post-emotional stance, according to Mestrovic, is the emergence of artificially contrived 'authenticity' – e.g. the creation of artificial online communities. Post-emotionalism is an attempt to make the 'Enlightenment project, therapy, civilization, and communities all seem predictably "nice" and to create Disneyesque, artificial realms of the authentic' (Mestrovic, 1997, p. 98). The danger of this, still according to Mestrovic, is the potential that post-emotionalism will degenerate into a new form of totalitarianism which is so 'nice', 'tolerant', and 'charming', whatever the event, that it proves hard to resist. The post-emotional package of the Balkan war, Mestrovic claims, provides evidence for all these.

How useful can Mestrovic's ideas be in theorizing cyberspace, ICT and education? Mestrovic (1997) proposes post-emotionalism, as an alternative (and purportedly a more appropriate term) to both postmodernism and modern theories such as Giddens's (1991) structuration theory. He argues that theories of postmodernism have neglected emotions and their impact, particularly on mass society. For him, it is problematic not to explore the role of manufactured emotional attachments to core values (e.g. patriotism, the 'American Dream'). This is precisely why post-emotionalism, according to Mestrovic, appears to be a better term than postmodernism, because the importance of emotion is acknowledged in the process of self-manipulation and manipulation by others. Further, the usefulness of post-emotionalism is that it mixes emotional memories with historical events. This clearly does not fit into the modernist camp, ruled by the values of the Enlightenment and marked by rationalism and the regard of emotionalism as insensible and of no value. Consequently, Mestrovic seems to be targeting the creation of a concept that includes both explanations for the rational and the emotional. But is he successful in doing this?

There has been some debate about whether the phenomenon of post-emotionalism has blurred the vision of the observer to really determine whether or not one is experiencing an 'authentic' emotional experience. After all, what is an authentic experience, and who determines the presence of authenticity? There has been a significant amount of research on emotional authenticity in sociology through a focus on the practice of emotional labor in businesses and organizations (Hochschild, 1983). However, emotions in organizations is much more than a simple overview of the emotional labor performed within a given organizational context. Mestrovic's understanding of emotions, although valorizing their role in our society, still treats them as subordinate to ends external to the emotions, e.g. a vague 'authenticity'. Consequently, this understanding does not fundamentally challenge the view of the modernist relationship between reason and emotion. The determination of which emotion is appropriate in what contexts and with how much intensity is still made by what is understood as an objective reason, since Mestrovic seems to have a very particular view of what 'authentic' stands for.

But even if we accept post-emotionalism as a viable possibility then a critical question in the context of education is the following: has this phenomenon of post-emotionalism blurred the vision of the teacher and the student to really determine whether or not they experience an 'authentic' emotional experience, e.g. when they communicate online? It is obviously extremely challenging – and admittedly highly speculative – to answer this question. Future research should take on this issue and explore its complexities more carefully. For the time being, our concern in this essay is to sketch some thoughts on the exploration of students' emotional experiences in online learning. Although our analysis will be mostly theoretical at this point, we will use some examples from a series of research and evaluation studies we conducted on online learning in order to show some of the students' descriptions of their emotional experiences in cyberspace. In the last part of this essay, we propose a pedagogical approach that begins to engage students in an alternative criticality of these emotional experiences and, in particular, their values and cherished beliefs.

### **Cyberspace, ICT and the Expression of Emotion in Learning Environments**

William Gibson defined the term *cyberspace* in the novel *Neuromancer*, published in 1984, as:

A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts. ... A graphic representation of data abstracted from the bank of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding ... (p. 51)

In Gibson's terms, cyberspace is a zone in which the boundaries between the social and the technological, human and machine, natural and artificial, virtual and real, subject and object, are blurred. The technological is not separated anymore from the human. Haraway's (1991) 'cyborg metaphor' is along the same lines and suggests clearly that the boundary between science fiction and social reality is 'an optical illusion' (p. 149). The difference between the human and the technological has become more complex. Body, sex, and culture are interwoven with technology – we are all cyborgs, says Haraway: 'Late-twentieth century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally-designed, and many other distinctions that used to apply to organisms and machines' (1991, p. 152). At the computer screen we move into a 'posthuman' state (Haraway, 1991; Turkle, 1995; Hayles, 1999). We become cyborgs in a networked society. We become cyborgs trapped in a web of complex and movable communication processes and online interactions.

Until now the reactions to cyberspace within the education community have ranged from technophobic – a fear that technology threatens cultural heritage and that many of technology's uses are dehumanizing and alienating, to technophilic – a traditionally instrumentalist perspective based on the notion that ICT is a neutral tool and should be used as a means of efficiently transferring knowledge. We agree that the main challenges for a critical adoption of ICT in education are the exaggerated claims made by both advocates and enemies of the Internet (Burbules & Callister, 2000; Burbules, 2002). For better or worse, the educational issues related to cyberspace and the use of ICT are not exhausted through the bifurcation of this matter into technophobics and technophilics. What can be seen as a limitation or danger from certain perspectives can be seen as an advantage or benefit from other perspectives. Educationally, we believe that it is useful to pay attention to the modes of communication and interaction that take place in cyberspace and the learning environments that promote meaningful and effective learning.

One way of exploring this, as a number of writers have suggested, is to analyze the claims for new forms of emotional expression and meaning as a consequence of the new technological developments. For example, Turkle (1995) sees the Internet as an area of enormous creativity and experimentation that provides opportunities for exploring identities, modes of interaction, and viewpoints that are not constrained by the usual assumptions about body, identity, and communication in the context of face-to-face interaction. People differ in how much their needs and emotions surface in their online identities; the anonymity, fantasy, and variety of online environments give ample opportunity for this expression of needs and emotions. The Internet opens spaces for people to get together with considerable intimacy and proximity without the physical limitations of geography, time, and social orientation (Williams, 1998).

In our own studies of the Internet in education (see e.g. Zembylas et al, 2002; Vrasidas & Zembylas, 2003; Vrasidas et al, 2003; Zembylas & Vrasidas, in

press), it is illustrated that although online interaction may be slower and 'lacking' in continuity, richness, and immediacy, when compared to face-to-face interaction, in some ways online interaction may be as good as or even superior to face-to-face. The following examples are quotes from a group of educators from the Pacific who participated in an online Master's degree in instructional technology. The messages quoted here were posted online during an online discussion that addressed issues of culture, interaction, and technology.

One student wrote, 'I never thought that we could develop our "listening" skills while being online, but I guess we are listening with our "inner ear," *both with our minds and with our feelings*' (added emphasis). The student continues, 'In my opinion, technology shapes/influences our cross-cultural online interaction by making us simply reflect on each other's posted opinions by just the words we use, and not based on biases, stereotypes, misconceived perceptions, or misinterpretations due to someone's skin color, physical appearance, gesture, or facial expressions.' Another student agreed and responded by saying:

Perhaps another way technology has influenced our cross-cultural online interaction is that it 'muffled' some of the insensitivity that we sometimes experience in face-to-face environments ... With this online technology, we have the ability to carefully read and re-read our intended postings before we submit, but in face-to-face, once our stupid words and actions leave us we cannot take it back. ... Since most of us are now living on or are originally from the islands where people share a lot and are very close with each other, this *technology has at least assisted us and facilitated our 'islander' longing to communicate, socialize, and make lasting relationships*. I am hoping, too, that we have done an excellent job using this technology to influence and promote positive attitudes of our cultural differences. (Added emphasis)

These examples reflect students' openness to examine how online interaction helps them to 'listen' to each other and be respectful of where each one comes from. At another level, the students' comments also illustrate that the relationship between emotion and reason can be explored and discussed as it emerges from the students' arguments regarding the 'benefits' of online education; this discussion becomes a deliberate effort to rationalize their participation in the program and yet provide some 'emotional' reactions to their experience. This suggests how online education can provide opportunities for learners to generate new forms of emotional experiences – e.g. it facilitated students' 'longing to communicate, socialize, and make lasting relationships'.

### **Implications of New Forms of Emotional Experiences in Online Interactions**

Now, what are the implications of these examples? First of all, electronic networks can function as new 'social nodes' (Heim, 1991) for the fostering of multiple and flexible 'emotional affinities' (Zembylas, 2002) that face-to-face interactions might not provide for some people. In cyberspace the barriers between identities, the body, emotion, reason, and the world 'out there' are radically altered. Of course, one may ask whether we can find 'pleasure in the confusion of boundaries and [the] responsibility in their construction' (Haraway, 1991, p. 150). Cyberspace can be seen as a zone of (re)socialization and learning and may lead to the creation of new forms of community, social bonds, and emotional experiences. In this new world of 'electronic emotions' – as Rice & Love (1987) call the emotions created in cyberspace – users of ICT can be connected and related in a variety of ways, from exchange to charismatic, intimate, or tyrannical relationships (Couch, 1995; Denzin, 1998).

Affordances of ICT (e.g. computer conferencing, interactive video, and audiographics) allow for kinds of interactions (e.g. two-way communication and interaction) which lead to new forms of emotional experiences. An affordance of something refers to the properties it has that allow it to be used in certain ways (Gibson, 1977, 1979). For example, a chair affords sitting. Interactive television affords seeing and hearing students from miles away and interacting with them in real time. ICT afford synchronous and asynchronous interaction among multiple users. Computer conferencing and the Internet afford the design of learning environments which support the development of communities of inquiry, collaboration, negotiation, and problem solving within authentic contexts. The affordances of ICT require that we revisit fundamental assumptions about pedagogy and emotions.

Issues of ICT and emotions are clearly brought out in Denzin's (1998) study of the gendered emotional talk and narratives of self-posted messages on an Internet news discussion group. They are also raised in our own studies of online learning in which we illustrate how the Internet has created a site for the production of stories that might otherwise not be told, stories which involve struggles and celebrations over cultural identity, meaning, and the self. In this new world of 'digital/virtual' emotions (Williams, 2001), individuals may begin to discover new things about themselves. Turkle (1995) argues that the boundaries are blurred 'between self and game, self and role, self and simulation' (p. 192). Given the important role of the self for the construction and development of emotions, Scherer (2001) claims that one can imagine that emotional expression in such virtual settings is highly complex and potentially 'far removed from one's everyday reality' (p. 142). Mestrovic (1997) makes a similar claim when he argues that in post-emotional societies there is a fusion of emotional experiences from different origins – i.e. 'synthetic, quasi-emotions' (p. xi) – and 'a spill-over' of the 'electronic emotions' into 'everyday

reality'; this is precisely what becomes the basis for manipulation of emotions by self, others, and the culture.

However, we find some of these positions rather problematic because they assume that there is something called 'electronic emotions' and that it is not desirable for these to spill over into 'everyday emotions'. It seems to us that Scherer and Mestrovic seem to privilege 'everyday reality' above 'virtual reality'; this, in our view, is another unproductive binary that perpetuates some of the traditional dichotomies we have described earlier in this essay. Although we do agree that the 'emotional' aspect in cyberspace is crucial to understanding self/other relationships online, there is much more to online presence than privileging the 'emotional attachments' (Boler, 2001) created in cyberspace. The concept of 'social presence', for example, might be of interest here. Thus, the constructs of 'emotional attachments' and 'emotional landscapes' (Boler, 2001) need to be scrutinized so that educators understand how and why students and teachers 'see' some things and not others, how and why they 'feel' some emotions and not others.

In addition to 'emotional attachments' and 'emotional landscapes', 'social presence' needs to be scrutinized as well. Social presence is the degree to which a medium allows the user to feel socially present in a mediated situation. Different media engender different degrees of social presence. It is hypothesized that the more cues transmitted by a medium, the more social presence characterizes the medium. Therefore, media such as interactive video and multimedia computer conferencing carry with them the potential for higher degrees of social presence than text-based computer-conferencing systems (Vrasidas & Glass, 2002). Previous research in this area indicates that social presence is important in how an emotional experience is defined in online interactions. Gunawardena (1995), for example, studied the construct of social presence and its implications for text-based computer-mediated communication (CMC) in education. She examined whether social presence is a characteristic of the medium itself or whether it is an attribute of the user's perception of the medium. The findings of her study showed that social presence could be promoted in a CMC setting by employing strategies that encourage interaction. In addition, she found that the lack of audiovisual cues led CMC users to invent other means to compensate for the lack of these cues. These findings are in agreement with other studies that show that the temporal, spatial, and contextual limitations of online interaction lead to the development of strategies that compensate for the lack of visual and aural cues present in face-to-face interaction (Werry, 1996; Gunawardena & Zittle, 1997; Vrasidas & McIsaac, 1999; Vrasidas & Chamberlain, 2002; Vrasidas & Zembylas, 2003). Such strategies include the use of capitalization, abbreviating the message, and the use of emoticons.

Nevertheless, it is unclear whether heightened social presence is always to be sought after. Some people may find the 'face-to-face ideal' interaction too anxiety-provoking and may function better in an environment that puts more distance between teacher and learner (Vrasidas & Glass, 2002). It is often

assumed that immediate interactions are preferred. Burbules (2000) argued that, 'it is a myth to imagine that more immediate interactions are always the most honest, open, and intimate ones' (p. 329). Some learners feel more comfortable and less emotionally intimidated interacting with teacher and peers by not being physically present (McIsaac & Gunawardena, 1996; Burbules & Callister, 2000). An area that seems promising for research is the relationship between emotion and reason in online teaching and social presence because ICT is producing new self-stories that influence social presence – stories that engage 'both with our minds and with our feelings', as one of the students pointed out earlier.

Some might argue, of course, that in cyberspace the depth of emotional experience as well as warmth and understanding which comes from embodied gestures (e.g. being touched by another person) are lost (Williams, 1998). This rather pessimistic vision of a world populated by cyborgs or Haraway's (1991) optimistic vision of a posthuman world are not essentialist in any manner. They both depend on the *meanings* we ascribe to us, others, and technology. Learners can interact 'with' technology, 'through' technology, or 'within' a technological context (Ihde, 1990), but on each occasion our meaning making abilities and embodied lives are central. The bored and blasé emotional response in the context of learning may exist with or without using ICT. As Burbules (2002) says: '[T]he Internet is providing a fascinating zone of experimentation in how people can move beyond these embodied facts, not for the sake of "escaping" them or denying them, but for *changing what they mean to us and to others*' (p. 393; author's emphasis). The power of this idea can be seen in an article by Taylor (1998), who vividly describes the utilization of computer images downloaded from the Internet (e.g. Van Gogh's *The Red Vineyard*) while lecturing in the dark. He writes:

We were there in that classroom together in a way we had not been previously. One indication of the gathering of meaning that happened that day is that a student wrote a poem afterwards (that subsequently won the annual poetry contest on campus) reflecting the intensity of the class, carefully examining what one sees in [the computer-generated image of] Van Gogh's painting.

### **Developing a Pedagogy of Discomfort in Online Learning**

A major challenge for educators is the development of new descriptions and conceptualizations of the use of ICT in ways that offer imagination and hope while acknowledging that emotion and reason are not oppositional in teaching and learning. It is important that we recognize these concepts not as ahistorical faculties but as notions that we construct to evaluate judgment and communication for various purposes (Nicholson, 1999). Thinking about emotion and reason as our own constructions opens a host of questions beyond those concerning the relation of emotion and reason. What kind of communication and critical judgment do we wish to promote in the context of

ICT in education – social justice, technological control, tolerance, intersubjective understanding? How and in which contexts should they be promoted?

The last part of this essay focuses on exploring a pedagogical approach that promotes thinking, feeling, and doing that resist socially accepted orientations to the status quo. Following Arendt (1970), the interrelation between thinking, feeling, and doing is crucial to countering the status quo in the modern society. Moreover, the interplay between critical thought, artistic praxis, and social action is one source of resistance to and transformation of the disempowering and reductive social and psychic processes that Mestrovic (1997) assumes in his work.

This pedagogical approach, which we call *critical emotional literacy* (Zembylas & Boler, 2002; Boler & Zembylas, 2003; Zembylas & Vrasidas, in press), emphasizes two important and interdependent aspects of criticality in using ICT:

1. The first aspect consists of the ability to question cherished beliefs and presuppositions, thus emphasizing the possibility of thinking *otherwise*.
2. The second aspect refers to the notion that criticality is not only a way of thinking but also a way of feeling and being, i.e. it is a *practice*, a way of life.

The above two aspects of criticality in using ICT in education do not assume any monolithic views about the imposition of specific critical attitudes on individuals from above. What becomes a central dimension of this kind of criticality is that to engage in such a practice, it is not simply a matter of individual abilities or dispositions (Burbules & Berk, 1999), but it requires moving against prevailing valued assumptions, values, and beliefs that become ‘colonizing’ (Tejeda et al, 2003). It is possible that not everyone can or will become a critically literate individual in using ICT. Nevertheless, a critical education in using ICT recognizes the multidimensional relationship between emotion and reason, while seeking and promoting practices of a decolonizing pedagogy.

The first step in developing such a pedagogy includes a realization of the production of new narratives about teaching and learning as a result of the advent of cyberspace. Mestrovic’s (1997) claims about the ‘McDonaldization of emotions’ may necessitate a fundamental reconsideration of existing pedagogical strategies so that they educate for a changed understanding of the relationship between reason and the emotions in education. While acknowledging the limitations of the use of ICT in education, we agree with Rice & Burbules (1992) that we can educate for critical sensitivities and critical literacy in the use of ICT. Since ICT are transforming education, key challenges for critical education involve how to analyze such transformations and how to devise conceptual tools and strategies to make use of ICT that empower traditionally marginalized groups and individuals struggling for democracy and social justice.

The importance of developing criticality in the use of ICT becomes readily apparent, if one considers the consequences of 'economy of attention'. Economy of attention describes the extent to which digital interaction increasingly relies on the commodity and currency of attention (Boler, 2001). For example, attention habits are dramatically changing given the altering nature of navigation in the Internet. As the Internet becomes a part of the global economy, the flow of attention will anticipate the flow of money (Mandel & Van der Leun, 1996). It is easier selling something to someone or convincing someone of one's ideas if you have his/her attention. Information explodes, but time and attention do not. The economy of attention is a zero-sum game. Thus attention, a finite resource, becomes a type of currency that defines online interactions.

If one accepts that cyberspace is based on an economy of attention, what are the implications for the use of ICT in education? How educators might ensure attention, reflection, and communication in online conversations, so that one may expect a measurable 'shift' in thinking and feeling, seems to be circumscribed by the economies of attention (Boler, 2001). In this manner, attention can be viewed as a force which can be harnessed for change. But thinking about an economy of attention and learning opportunities raises even more questions concerning learners' development of criticality in navigating their attention:

- Does an economy of attention change the nature of learning and teaching?
- Does an economy of attention change the nature of thinking and feeling? Attention to what end: knowledge, feelings, effectiveness, something else?
- How can attention be navigated? Transferred? Co-opted? How do educators or learners evaluate competing requests for attention?
- How can learners develop the ability to deal with the discomfort which lies at the interaction of elements in an attention 'market'?

The reality is that many children do not get a chance to receive critical emotional literacy either at school or at home (Boler, 1999; Zembylas & Boler, 2002; Boler & Zembylas, 2003). 'Critical literacy', according to Zembylas & Boler (2002), 'is an invaluable practice of "rational" examination of the illusions internalized by virtue of ideological processes. ... Critical literacy emphasizes the value of rational dialogue as a way out of the confused irrationality of ideology such as patriotic nationalism. Critical media literacy follows these rational trajectories.' What is missing, continue Zembylas & Boler (2002), is an explicit emphasis within critical media literacy on engaging students in analysis of the conjunction of the cognitive *and* the affective investments they experience in relationship to particular symbols.

Consequently, they argue that a *pedagogy of discomfort*, unlike critical media literacy, offers direction for transformative education through its recognition that effective analysis of ideology requires not only rational inquiry and dialogue but also excavation of the emotional investments that underlie any ideological commitment. As its name suggests, this pedagogy emphasizes the need for both the educator and students to move outside of their comfort

zones (Boler & Zembylas, 2003). The comfort zone reflects emotional investments and beliefs that by and large remain unexamined, because they have been woven into the everyday fabric of what is considered common sense. A pedagogy of discomfort invites students to leave behind learned beliefs and habits, and enter the risky areas of contradictory and ambiguous ethical and moral differences. For example, numerous messages are flooding the Internet, seeking people's attention and potentially evoking discomfort, e.g. resistance, fear, anger. The purpose of attending to habits and beliefs as part of a pedagogy of discomfort is to draw attention to the ways in which individuals enact and embody their values and assumptions in their emotional reactions to such messages. By closely examining emotional reactions and responses, one begins to identify unconscious privileges as well as invisible ways in which one complies with dominant ideologies (e.g. patriotism in the USA after September 11).

A central focus of developing criticality in navigating one's attention in the Internet is to recognize how thinking and feeling define how and what one chooses to see and what not to see. In the aftermath of various political or social events – e.g. the events on September 11 – it is difficult and painful to examine how some feelings such as anger and indignation – expressed in the mass media and the Internet – are potentially *mis*-educative, especially when many individuals find comfort in the solidarities created. The aim of a pedagogy of discomfort applied in the context of online education is to analyze the kinds of relationships between emotion and reason created in cyberspace and how they shape and mark one's sense of attachment, social presence, and self-identity. Developing the skills and knowledge to analyze how the Internet 'teaches' people to view the world through a 'partisan' lens is an important step in identifying exploitation, alienation, and disparities between the haves and the have-nots.

For example, the earlier examples from our studies reflect students' willingness to respect others' points of view. Their comments reflect that they engage in thinking and acting that considers the complexities of learning and their relations with others, and they are aware of how their cultural heritage has taught them to 'see' things from a particular viewpoint. As one student wrote in her response,

With the cross-cultural groups the Internet has allowed us to help one another and share among ourselves our personal feelings and ideas on a given subject. It prepared us to look at issues and understand better ... the culture that we're from. In addition, the Internet has given us the opportunity to respect other cultures and be aware of our differences and evaluate our messages carefully before posting.

Another student agreed and added,

I know that all of us are representing diverse cultural groups. Each of us has a different way of looking and interpreting things, even in the way we express ourselves. I am really amazed that the differences did not show

much of how different we are. Rather, it brings us together to concur or agree about many things ... Although we have been separated by this huge water of the Pacific, we have been enriched by its immensity. We have learned to be adaptable and adjustable to different kinds of situations such one is our culture. So through the Internet, we learned from each other. Through our discussions, we have learned to appreciate, critique, enjoy, and so forth.

The blatant possibility for sociality in using the Internet and the effects of their technology-mediated interaction help these students from the Pacific to better understand the ways in which culture, education, and community are manifested online. Online interaction allows for exploring the complexities and the cultural aspects of one's identity. Thus, an important issue for educators, given this online, cultural, and historical context, is how subjectivity is redefined after discarding fixed notions of identity and celebrating notions of the self as process, complexity, and cultural interrelatedness. To put this in a different way, both educators and students in the context of a pedagogy of discomfort in online environments have possibilities to develop identities that take account of difference *between*, difference *among*, and difference *within*, and conceptualize identity/subjectivity as a continuous dynamic process (Vrasidas & Zembylas, 2003).

Finally, another aspect of developing criticality in the context of a pedagogy of discomfort is acknowledging that criticality is not only 'a way of thinking' but also 'a way of feeling and being'. We are using the word 'thinking' in the widest sense possible. It includes believing, inferring, explaining, judging, and interpreting (Gratton, 2001). Criticality is founded on both emotions and reasons (Barbalet, 1998). The traditional view is that a critical thinker is disposed not to think in emotional ways because emotions distort judgment. As we have seen earlier, disengaged-disembodied reason is a myth; critical thinking is relevant to one's emotional well-being for two simple reasons. First, it provides the tools with which to assess the beliefs one holds; second, this assessment enables us to identify and reject disturbing beliefs and emotions. This use of criticality in the context of a pedagogy of discomfort empowers educators and their students to problematize their discomfort and emotional challenges and explore their ethical responsibilities.

### Conclusion

The argument presented in this essay carries important implications for contemporary forms of emotionally embodied experiences 'in the classroom' or 'in front of the computer screen'. The tensions between the presence or absence of authenticity, or between emotional involvement and disengagement/detachment, together with the challenges of using ICT in education, suggest a number of dilemmas for educators and learners in a post-emotional society. These dilemmas defy easy answers but suggest the

possibility of critically having to rethink the relationship between emotion and reason and its implications in online learning and teaching environments.

The development of a pedagogy of discomfort in the context of online learning can promote understanding and tolerance of difference. In the educational arena, the construction of decolonizing pedagogies in cyberspace must go hand in hand with developments in ICT. The use of ICT is filtered through these pedagogies and creates spaces for the production of new stories about life and learning, involving struggles over identity, meaning and the self; thus a politics of ICT intersects with a politics of the self.

The analysis in this essay suggests that the use of ICT in education may produce a blurred but intense emotional experience. This would constitute a topic of research of primary importance for students and teachers in learning environments. In a world undergoing processes of globalization, educators should take advantage of all the ways in which social interaction is manifested and manifests individuals. Educators need to explore the opportunities offered by the Internet, multimedia, and virtual reality to create the kind of new knowledge needed in contemporary society. In this information society, learning should be oriented towards *critical* communicative competence that does not ignore the conjunction of emotion and reason and emphasizes transformation, flexibility, and complexity.

When examining the history of inequities and injustices, for instance, critical education in the use of ICT must explore the relationship between emotion and reason, not because knowledge of emotion rationalizes things and 'installs the proper guilt' (Britzman, 1998, p. 112). Rather, its examination can enrich the history of the relationship between emotion and reason and examine the implications for teaching and learning within a particular context. Further research must continue to investigate the nature of the relationship between emotion and reason as this is communicated online. It should also examine to what degree the nature of online interaction matches the user's intent and how the user's feeling and thinking impact his/her experience in the context of an online learning environment.

There was a time in the past when purists in science and technology believed that emotions detracted and negatively influenced the 'true message' – emotion was part of the 'noise' which had to be removed to get the 'real' message. Fortunately, it is gradually becoming clearer that such a position is no longer attainable. Emotion *and* reason cannot be removed from social interactions, face-to-face or online interactions. The role of ICT in education is not merely a matter of more or newer technology, but of getting right the pedagogical rationale; a rationale that is *rationally* and *emotionally* informed by research and analysis of the relationship between emotion and reason in learning and teaching.

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