

EDITORIAL:

Education, Food Justice & Sustainability

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Responses

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It seems clear that much of the world is under the grips of a hegemonic force. Aggressive capitalism appears to be running amok, ever-degrading the wellbeing of individuals, societies and environments while a relatively small group of elite enjoy local and global — albeit likely relatively short-lived — pleasures. Despite the destruction, the perpetrators often are unseen. John McMurtry suggests that this can be understood, however, by likening our current economic system to metastasizing cancer. In *The Cancer Stage of Capitalism* (McMurtry, 1999), he suggests that the promoters of under-regulated, aggressive and globalized capitalism behave like cancerous cells — resembling us (the ‘lifeworld’), but acting in their own interest to the point of destroying everything that impedes their gluttony.

Embodying a spirit of reckless greed is the transnational corporation, which has the legal right — as an ‘individual’ — to maximize its profits by minimizing its costs. A major approach to cost minimization is to *externalize* them — which involves leading others to pay costs associated with research and development, education, resource extraction, manufacturing, marketing, transportation, sales, disposal, etc. of goods and services (e.g., Bakan, 2004). Food manufactures may, for instance, externalize to governments and individuals costs of health care associated with various illnesses arising from food additives — such as salt, sugar, preservatives, fats, etc. Similarly, pharmaceutical companies may produce drugs based on government-funded research in universities that sometimes is so expeditious that the integrity of that research — and health effects of the associated drugs — has been called into question (Angell, 2004; Krimsky, 2003). Such irresponsible drive for wealth accumulation by the few appears to be at the root of the many personal, social and environmental problems currently faced on Earth.

In recent years, governments have placed increased priority on preparing citizens — often through school science — to address what have been called *socioscientific issues* (SSIs) because of the recognition of influences of members of society (e.g., financiers) on choices within fields of science (and technology). Zeidler et al. (2005) discuss, for example, ways in which educational organizations in many countries “recognize the importance of broadly conceptualizing scientific literacy to include informed decision making; the ability to analyze, synthesize, and evaluate information; dealing sensibly with moral reasoning and ethical issues; and understanding connections inherent among socioscientific issues (SSI)” (pp. 357-358).

In support of such mandates, many researchers and developers have explored approaches for helping teachers and student-teachers to enact the new learning expectations (e.g., Simonneaux & Simonneaux, 2009; Zeidler, 2003). Buxton (2006), for example, studied elementary school children who investigated various issues pertaining to the local seafood industry and their school property and, then, took action on some of them (e.g., reclaiming school property for use as a garden). Although considerable progress appears to have been made in development and research associated with possible roles for socioscientific issues in science education, actual school practices often are more modest. For complex reasons, school science systems tend to focus instruction “almost exclusively on the well-established products of science [e.g., laws & theories] and cookbook approaches to laboratory exercises, using authoritarian teaching modes” (Bell, 2006, p. 430). Such didactic approaches can limit students’ exposure to contentious issues — often avoiding discussions that might cast fields of professional science and technology in a negative light (e.g., Hodson,

2008). Often omitted, for instance, are references to problematic aspects of business-science partnerships — which often require overly *expeditious* research to support product development — that can compromise the integrity of practices in fields of science and technology (e.g., Carter, 2005).

Where there is attention in school science systems to socioscientific issues, it often appears to be limited to situations in which students are asked to negotiate contentious issues and defend their positions on them. Although this is considered very valuable, it appears to be much less likely that students will be asked to take *action(s)* — such as petitions to power-brokers — to address issues (e.g., Lester *et al.*, 2006). As Hodson (2003) said, “[i]t is almost always much easier to *proclaim* that one cares about an issue than to do something about it!” (p. 657; emphases added).

There are many reasons to encourage and enable students to take sociopolitical actions to address issues associated with fields of science and technology. Many suggest the potential (if not realized) seriousness of problems that may arise from them is warrant enough (e.g., Gabbard, 2000; Henry *et al.*, 1999; Hodson, 2003; McLaren, 2000; McMurtry, 1999). Without an activist citizenry, the wellbeing of individuals, societies and environments may be in great peril. Beyond such dire scenarios, however, it can be argued that student activism may help develop deeper, more meaningful conceptions of issues — because, for example, deep, attached, learning is thought to arise when there are relatively close *reciprocal* associations between phenomena of the world (e.g., toxic metals in cell phones) and a person’s representations (e.g., notes about the toxins, and suggested actions to address them) of them (Wenger, 1998). This may, indeed, be crucial in the sense that neoliberalism (described above) often creates such a ‘hyperreal’ world that people can be manipulated by manufactured representations (e.g., those in advertizing) that have minimal attachments to phenomena (Baudrillard, 1998). In this vein, moreover, we may be *wise* to act for the common good — since, in the light of social epistemological claims that all knowledge and events are a *collective* responsibility (Fuller, 2002), acting well for others may engender personal wellness. At the same time, in congruence with the ‘engaged’ STS program (Sismondo, 2008), actions for the common good can teach us much about ethics in the history, philosophy and sociology of science and technology. Finally, there is evidence to suggest that citizen activism can be successful — such as when AIDS activists uncovered and addressed unethical practices with regards to clinical trials of medications (Epstein, 1996).

In this Special Issue of the *Journal for Activist Science and Technology Education*, we present six papers in which authors highlight particular issues and actions associated with agriculture and food. This is a topic that we feel has been largely ignored within most educational discourses and, yet, needs serious immediate attention. There are many potential problems for the wellbeing of individuals, societies and environments associated with fields of science and technology dealing with agricultural and food systems. Despite the apparent wealth of resources, many humans and other living things are either over-fed and under-nourished or under-fed. Preventable diseases, such as blood-vascular diseases, diabetes and cancer, are strongly linked to various food additives in manufactured ‘foods.’ There are many other related issues, however. The diversity of living things serving as human foods has been decreasing, as companies select those most amenable to mass-processing and sales. Many food organisms are genetically modified not, necessarily, to improve their nutritional value but — as in the case of seeds modified not to reproduce — but to increase companies’ profits. Meanwhile, people who work in various industries along the food production-consumption cycle are at risk, emotionally, economically and physically. Each author writes with passion and deep experience related to such issues and relevant actions — and we encourage readers to engage them in discussions about their work through the WePaste forum (<http://www.wepaste.org/paste.html>).

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