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# Educating for *Civic* Intelligence

(The Collective Intelligence We Need)

Position Paper

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Collective intelligence is—and will continue to be—indispensable for humankind if we are to make adequate progress towards preventing global catastrophes. How should we think about the concept? How can it be actually used to support education for positive social change? And how can we organize ourselves and others in support of this work?

The paper presents several assertions that highlight critical aspects of educating for the collective intelligence, that is needed to address significant real-world problems. Some of them may seem to be speculative or philosophical (or at least not formally delimited) but conversations around these issues are essential; ideally they help further the workshop's goal of forging foundational concepts and they become ongoing considerations of this endeavor.

This paper focuses on *civic intelligence*, a specialization of collective intelligence that does not include collective intelligence that focuses on irrelevant or, even, oppositional goals. This focus has many important implications for this work. Ideally, it can help understand the critical needs of our era and help us develop proposals for interventions and midcourse corrections.

## *Collective* Intelligence is the Wrong Term for Our Needs

Collective intelligence is becoming increasingly popular as a research topic. It puts a name on an important and ubiquitous phenomenon: the ability of groups of agents to work together intelligently to accomplish something effectively. After all, nothing of any magnitude is created by a single individual. Although intelligence in humans has always been "collective" in many ways, this focus has become more prominent (and urgent) with the advent of the Internet and the dense, hybrid interconnected hyper-network of people, software, and untold numbers of *things*, that it spawned. Indeed, this computing complex (Schuler 2024) has, within an unprecedentedly brief period, multiplied our opportunities for developing and using our collective intelligence for good. The computing complex provides much more in the way of challenges and opportunities than can be understood by the idea of increasing communication between people. The quality and quantity of communication is changing, as well as the configuration of the new and evolving communicative networks—who (or what) is speaking to whom, and how symmetrically. The role of non-human entities and artifacts becoming embedded in this web further complicates the matter and how it is governed. Unfortunately the challenges have risen just as quickly as the opportunities—and many of the misuses that it has enabled are more profitable and more easily empowered than the positive ones. After all, as Lyndon Johnson said, "Any fool can burn a barn down."

Given the many potentially disastrous crises looming, questions related to collective intelligence take on profound relevance. On the other hand, the idea of collective intelligence as it is currently envisioned, does not provide the foundation we need. One problem with the conceptualization of collective intelligence is that it tacitly assumes that it is a benign phenomenon, something that we need to aspire towards. On some level the assumption is that "bad" actions will not be taken—perhaps because those would be unintelligent? But, while optimism and hope can be good things (as well as the idea of "progress" itself), these affective perspectives should not deter us from acknowledging, at the very least, the forces that are enabling the problems that our collective intelligence must face. It also means that are many types of collective intelligence efforts out there—and many are pitted against each other. Acknowledging threats is one of the key functions of intelligence—and has been presumably a key driver in the development of intelligence at all levels since day one.

In addition to equating the concept of collective intelligence with goodness (and thereby leaving it more or less unperturbed analytically), it also implicitly (if unintentionally) includes too many types of collective activity under its characterization. *War*, to give just one example, requires *collective* intelligence. Some people, of

course, will want to study collective intelligence to improve the ability to wage war. How can information from various sources be leveraged to inflict the most harm to the enemy. (As a relevant aside, it would be interesting to know how much time and money is spent on improving the ability to wage war. And how much is spent preventing war…) So, assuming we are interested in having fewer wars, or ones with fewer deaths or with less damage to the environment or being able to move some of the military budget to schools, the collective intelligence we would like to foster, would vary considerably from that of the war planners.

The term "collective intelligence" does not mean what we wish it would mean. However, if we use the modifier *civic*, as I recommend, instead of *collective*, we can talk about particular forms of collective intelligence that seeks to mitigate problems and helps avoid systemic and devastating problems such war, environmental degradation, racism (and other isms), organized (and disorganized) crime, *mining* private data from millions of online users or leading them into extremist sites. Moreover *civic* intelligence foregrounds the idea of the common good, regardless of how difficult these ideas might be to pin down, or how naive these goals might seem to others. Anything shy of this is an implicit assumption that the point systems and institutionalized mores that one is operating under provide the last word. Unlike *collective* intelligence, *civic* intelligence is defined in terms of addressing shared problems effectively *and equitably*. Although civic intelligence may "emerge" or be practiced implicitly, generally speaking, civic intelligence is intentionally used for the common good. And if we do insist on using the term collective intelligence, we should keep in mind that our findings and beliefs about collective intelligence do not necessarily apply to what we are learning about civic intelligence—and vice versa. In the following text I will be using "civic intelligence" rather than "collective intelligence" in almost all cases.

**Characterizing Civic Intelligence**

For at least a century, intelligence has been being conceptualized as something that resides in individuals, ignoring the fact that it is largely a social phenomenon. It has been generally been "measured" by isolating individuals from others and from all sources of information, and presenting them with a quantity of printed problems to be solved (with simple, clear answers) in a restricted period of time. These unnatural circumstances and constraints might very well define the opposite of the problems that the civic intelligence we need must address. The challenges we face do not have right, wrong, or easy answers. They morph and pop up unexpectedly in vexing ways, and they do not quietly go away.

While intelligence itself is not particularly easy to define, it, circularly, generally implies the ability to do things *intelligently*. And if the IQ test is any measure of what "intelligence" is or ought to be, putting the "collective" modifier in front of it merely magnifies the sterile, unproductive, and unrealistic version of what intelligence is; it would be spectacularly inadequate for addressing the crucial issues that humankind faces. (Exploring collective intelligence in the abstract, symbolic, or modeling sense (via, say, intelligent agents or iterative game theory) can, of course, be useful, but it can never be assumed to be identical to collective intelligence as it is actually manifested.) Also, whether implicitly or explicitly, acknowledging that intelligence is only defined in relation to challenges (such as problems to be answered in an IQ test) puts our ability to pin a *useful* number on it is further out of reach when it comes to issues in the real world. For one thing, making changes in the real world is not solely a cognitive undertaking. It involves finding resources, working with people, possessing self-efficacy, motivation, etc. etc. etc. as well as actually *taking action*.

Thus, the collective intelligence that we need cannot be reduced a number. On the other hand, we would like to be able to assess or characterize it in useful forms so we would be better able to note its improvement or decline —and be able to take steps. This begs the question of how we can characterize it usefully, something my students and I looked at (see below). For one thing, looking at two forms of civic intelligence, latent and engaged, is probably useful. We do not truly know how effectively latent civic intelligence can be transformed into engaged civic intelligence when the time comes.

The variables to consider are (1) the challenge itself; (2) the configuration of collectivity (ie. who or what is said to manifest the intelligence), humans, groups, artifacts, interactive systems, methodologies, resources; and (3) their civic intelligence, both latent and engaged. This characterization is suggested in the call via the “two epic collective intelligence failures: the responses to COVID and climate change.” While not quibbling too much with the general characterization, for our purposes, I might label the responses as inadequate (or, even, sub-optimum) with the implication that things could have been *worse*, in addition to the possibility that they could have been better. We have found it more useful to think in terms of a of continuum (however imprecise it might

be) between perfect and absolute failure. While civic intelligence is never zero, it can always get worse.

This workshop is an example of civic intelligence and having made the claim, several interrogations immediately are put on the table—questions that thinking about fostering civic intelligence in terms of educating for collective intelligence can help answer, such as what could be done during and after the workshop that would help sustain that effort.

**Crisis of Civic Intelligence**

This assertion states that while the speed and ferocity of the threats that humankind must face are rapidly growing, becoming *wickeder* (Schuler 2021), our civic intelligence, both in quantity and quality, is not keeping pace. Civic intelligence, while sub-optimum in the best of situations, is a threatened resource. Many of the current problems we face can be traced back to inadequate civic intelligence. This suggests that by addressing the problem of threatened and degraded civic intelligence (i.e. civic ignorance) we *could* make faster headway on the massive problems we face, such as climate change. And although empires throughout history have routinely collapsed and wars killed people and devastated the environment, the scope of destruction was smaller than what might see in the near future.

Unfortunately our optimism (or blind faith?), coupled with substantial individual and institutional inertia, tends to make us discount the very real threats that humanity faces. One of these threats is that civic intelligence itself is an actual threat to institutions and people who rely on civic ignorance in their day to day activities. In other words, civic ignorance in a variety of forms poses an actual ongoing tangible threat that we ignore at our own peril. As with other versions of collective intelligence, it learns and adapts: It is a perverse form of intelligence. (And, this should go without saying, but it is real problem when people or groups believe that they alone have a lock on what is true and what is not—and this caveat should be considered by ourselves—as well as by others. )

Unfortunately, the crisis of civic intelligence is no more *solvable* than the other wicked problems (Rittel & Webber, 1973) facing us. It is the case, however, that we must assume that progress *can* be made—and it will be through efforts like this that workshop we will improve our understanding of where the challenges and opportunities exist for improving our civic intelligence. And just as meta-cognition is a factor of intelligence in individuals, groups, large and small, can examine their own societal metacognition (Schuler 2015). The question here, of course, is whether we will be smart enough soon enough.

**Civic Intelligence Cannot be Automated**

By inclination or institutional demands, technologists often assume that technology can solve the problem first, and acknowledge the questions we should have asked later. The idea that tech will save the day is to put on a variety of cognitive blinders, willingly suspending disbelief of mounting evidence. Citing advances in computer speed or computer generated text, images, and audio, that appear to be intelligent which *could* be used for the public good, is to miss the broader picture, including the very real possibility that they will further degrade the public and the environmental spheres (see Schuler 2024). Rather than being a harmless fantasy, it is dangerous, particularly at this time because, at the very least, it diverts useful thinking and wastes precious time. While there are many opportunities to build on tech (and to work against malicious tech) we should not begin with the assumption that a technological solution exists; indeed, the need for human intelligence has never been greater.

**Educating for Civic Intelligence Includes Non WEIRD People Too!**

The collective intelligence we need, civic intelligence, must extend to everybody, not just that small segment of the world's population, that can be characterized as WEIRD, i.e. *western, educated, industrialized, rich,* and *democratic* (Henrich, Heine, & Norenzayan, 2010). On the one hand, this is a matter of basic equity and human rights. On the other hand, especially in the context of educating for collective intelligence, there is the absolute need for many people to be engaged in this enterprise. The huge, historically unprecedented wicked problems (Rittel & Webber 1973) that we face will not—can not—be effectively and equitable addressed solely by experts or other elites, even if they could be convinced to change some of their habits. The problems are also linked to communities around the world. And, on the back of that other hand, is its converse, the warning that people who are not engaged in civic intelligence (implicitly or explicitly) may be engaged in perpetuating civic *ignorance*. As an example, people with less education and who are more likely to be feel disrespected (and often *are* disrespected), may be more likely to fall prey to authoritarianism or have fewer concerns for environmental stewardship.

**Getting Down to It: Doing Civic (Collective) Intelligence for Education in Classrooms**

Sooner or later, the needs, thoughts, and recommendations that we are considering must be transformed into educational practice, action, where each action is informed but provisional. If nothing happens in the actual world, the exercise becomes mere rhetoric. There is, of course, the practical issue of what a teacher can actually accomplish in a classroom—or other venue where exploration and learning can occur. What is done in classroom, what is in the curriculum, the canon, research objectives, educational policies, community factors, collaborative potential, and research dollars are all opportunity spaces (Schuler 2008) for improving civic intelligence, even if limited.

At Evergreen, as part of my commitment, I determined that the idea of civic intelligence would be paramount in all of my work with students (and be in the title of all my classes) until I retired some 10 years later—although I did not actually stop working. While anecdotal, I will say that many of former students consciously put into practice many of the concepts related to civic intelligence in their post-Evergreen trajectories, such as Native education, police work (currently a commander in local police), governance (the current mayor of Olympia, Washington), as well as involvement in public health, public media, and non-profit sectors. To illustrate this focus, I will discuss the civic intelligence framework and, briefly, the Civic Intelligence Research and Action Lab (CIRAL) venue that my students and I organized and conducted. These examples are not intended to provide the answer (indeed, there is no "answer") but hopefully they can help provide ideas and, perhaps, inspiration, for pedagogical choices, as well as the future work of the community involved in this symposium.

**Civic Intelligence Framework**

Students in my classes, early on, became weary of my use of the term "civic intelligence" which, at the time, was largely built upon a notion, a fairly loose definition, and some examples. The question of what features were necessary or useful in understanding civic intelligence—or using it—had not been explored in a focused, sustained way. They asked this question because they were interested in improving their civic intelligence and in assessing its use by others in projects. Asking these types of questions, I would argue, is an essential aspect of civic intelligence—and, ideally, of education in general. Unfortunately this is often not promoted within educational settings. And the idea of using a student-originated question as the basis for a sustained collective enterprise, also, critical for educating for civic intelligence, is extremely rare.

We spent considerable time in and outside of class developing a taxonomy that included the core aspects. For the second class session students brought in their initial thoughts for features that they thought belonged in framework and explained their rationale. Over the course of the term, the proposed features were considered, debated, combined, or deleted. Rather than creating simply a laundry list of features, we came up with several categories that seemed to cover the area and, under which, each feature seemed naturally to fit. The process and rationale, as well as the categories and features, some of which are listed below, were presented in more detail in "Pieces of civic intelligence" (Schuler 2014).

- Knowledge; including a variety of knowledge-based capacities such as theory, knowledge of problems, skills, resources, self-knowledge and metacognition (the ability to think about one's own thinking). And knowledge can be expressed in various approaches, in and out of school: art, drama, social science, observing, humanities, etc.;
- Attitude and Aspiration; including a variety of capacities that are typically seen as non-cognitive but are essential for civic intelligence such as values, civic purpose, motivation, and self-efficacy;
- Organizational Capital; including the processes and structure of the collectivity that are needed to complete tasks effectively, such as personnel, work practices, and access to resources;
- Relational and Social Capital; including reputation, social networks, social capital, opportunities, reputation; and
- Financial and Material Resources; including time, money, buildings, land, and the like.

It is likely that drawing from all five categories would be necessary for any project. For example, group skills are absolutely critical, but they by themselves would not be adequate without, for example, knowledge of the problem they wanted to address or adequate resources to conduct the campaign they planned. On the other hand, the knowledge category, is certainly over-represented in higher education. In our approach we decided to error on the side of too many features, rather than too few. We were definitely not looking for the one feature

that would sum it all up, believing, that no such feature existed. This work can be seen in contrast to the IQ-oriented discussed earlier and the important distinction between collective intelligence and civic intelligence. For example, courage is not likely to factor into an IQ test. It played, however, an important role in social change activism, such as registering black voters in the US southeast in the 1960s, within an overtly hostile environment. While the symposium's call for position papers asks if a "moral dimension" is necessary, everything suggests yes, regardless of the empirical or theoretical challenges. The idea of "solving" issues such as climate change, environmental destruction, or nuclear war, without an ethical, moral, or other humanistic dimensions, is frankly absurd. These are not technical problems with instrumental efficient resolution and any attempt to see them as such is like constructing a ladder to the moon: you cannot get there from here.

In a subsequent term students used the framework to develop a survey for determining and ranking the civic intelligence of colleges and universities, as a way to focus on educational mission and to explore the existing rankings that colleges and universities rearranged their systems to accommodate that were often tied to class. By the same token, this budding community could use a similar approach to examining itself or the changes we would like to see using something along these lines.

Clearly, assuming that some of the elements are useful aspects of civic intelligence, the question of how they can be internalized by students (or anybody interested in inquiry and learning) arises. Clearly that can not be conveyed solely through instruction. Working collaboratively on a shared intellectual project is at the heart of many of the projects addressing wicked problems must face. The framework that we developed could be used by students around the world; as something to critique, examine, test, and modify. What might they come up with it to improve their self-efficacy in a world that does not always value this? How would they reflect on their experience? While the features are useful, they are not authoritative or comprehensive. But they can be used as a starting point for a discussion. Moreover, the taxonomy of civic intelligence enablers could be useful in assessing our own efforts in this area—and how we decide to pursue our aspirations collectively. It could also form the basis of a handbook, course or curriculum.

**Civic Intelligence Research and Action Lab**

A student assignment helped give birth to the Civic Intelligence Research and Action Lab (CIRAL), a venue I developed for understanding and improving civic intelligence in an educational setting. Working in teams, the students were to devise a proposal for improving the civic intelligence of the college in some way. After I had given it to them it occurred to me that I might also work on that assignment—and the CIRAL concept was the result. I think I would grade my proposal somewhat favorably (although Evergreen does not have grades) because it helped to institutionalize the civic intelligence pursuit without imposing specific ideologies. From the start, students were the primary (but not sole) instigators of our guidelines and purpose. Early on, it was decided that students would form issue or problem clusters with three or more students. Individual projects were not allowed but suggestions from individuals were key. Every project had to incorporate research and action. We had regular meetings, self-governance was the norm, and the projects were sustained over time: I agreed that I would be supporting this every quarter and students they could enroll as often as they liked—and a faculty member even attended for two quarters. Pedagogically we were all over the map: homeless census, civic intelligence games, student produced films, public forums, repairing the roof of the homeless shelter in Olympia and putting solar panels on the roof of the library at Evergreen. During the years I orchestrated CIRAL, students would talk about expanding it, adding nodes in other schools, for example. Or starting a Research and Action Lab at the city level. And when I retired, there were efforts by the students to enlist people to keep it going. Students discussed it on the campus radio station and they took their case to the dean. The idea is still out there—and I presume that similar work is going on in other venues—but not enough.

**Developing the Collective Intelligence We Need When the Reward Structures (etc.) are Opposed**

Unfortunately many of the standard practices of education do not support this work: Grading individuals, standardized rote learning, creating a class of left-behinds, not encouraging personal initiative, creativity, etc. A quick look of the attributes of civic intelligence that my students and I created will quickly illuminate other shortcomings. Just as too-rigid or under interrogated versions of intelligence can hamper real progress, the same applies to education. And if our vision of collective intelligence is solely directed at elite (WEIRD?) institutionalized educational settings, we are only seeing a limited part of what collective intelligence is.

Educating for civic intelligence requires swimming upstream and blazing new paths. It also means shaking our fists, and walking the walk—as well as the standard scholarly activities such as researching, musing, and theorizing. Sometimes we need to find the loopholes. At Evergreen, it was the undergraduate research category, designed originally so small numbers of students could work on experiments with the science faculty. I am not sure that having 10-20 students signing up for it, was what they had in mind, but it worked for our purposes.

**Technology *Can* Be Part of the Solution**

Finally, while computing (and technology generally) can not address these problems by itself, the need for computing in support of civic intelligence is critical. When is tech useful and necessary? Partial answers include when collaboration across barriers, when long-term storage, and when process and mutual support are necessary. For example, in 1987 I proposed Arbitration and Conflict Resolution as the third viewpoint for a Civilian Computing Initiative (1989) which was a humanistic alternative to the Strategic Computing Initiative, which was being put forward to support war waging via an autonomous vehicle, battlefield management, and pilot's associate using AI. The CCI idea was to promote computing that was explicitly focused on the common good. The barriers to projects like this are legion, but perhaps surmountable.

**Focus on Civic Intelligence**

The most important goal here is to help people understand the value of civic intelligence, to be able to use the concepts, to consciously cultivate it, to advance our understanding and to propagate the concept (into organizations, policies, norms, and groups). We could look at it something like this:

Civic intelligence as Social Science: *Let's study it!*

Civic intelligence as Education and Policy: *Let's promote and support it!*

Civic intelligence as Organizational Self-Reflection, Diagnosis, and Aspiration: *Let's use it!*

Civic intelligence as Social Movement: *Let's do it!*

The American philosopher, John Dewey, over his 60+ year career, focused on a pragmatic philosophy related to actual social challenges, including the integration of millions of new citizens into the United States. It is not known (to me at least) whether he ever used the term civic intelligence, although many people working in similar areas at the time did (City Club 1911). His "democratic faith" quote prefigures and inspires the work of this symposium:

> "*While what we call intelligence may be distributed in unequal amounts, it is in the democratic faith that is sufficiently general so that each individual has something to contribute, and the value of each contribution can be assessed only as it entered into the final pooled intelligence constituted by the contributions of all*."

**References**


Dewey, J. (2013). A common faith. Yale University Press.

City Club (1911). What is Philadelphia Doing Outside of Her Schools to Cultivate Civic Intelligence?, *Bulletin,* City Club of Philadelphia. March 15.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. Nature, 466(7302), 29-29.

Rittel, H. & Webber, M. (1973). Dilemmas in a general theory of planning. Policy sciences, 4(2), 155-169.

Schuler, D. (1989). A Civilian Computing Initiative: Three Modest Proposals. In *Directions and Implications of Advanced Computing*, Ablex. Edited by Jacky and Schuler (Eds.)

Schuler, D. (2008). Liberating voices: A pattern language for communication revolution. MIT Press.

Schuler, D. (2014). Pieces of civic intelligence: Towards a capacities framework. *E-Learning and Digital Media*, 11(5), 518-529.

Schuler, D. (2015). How we may think: The next chapter: Civic intelligence and collective metacognition. *ACM SIGCAS Computers and Society*, *45*(4), 7-14.

Schuler, D. (2017). What Do We Rank When We Rank Colleges? Who Determines How and Who Benefits?. The Radical Teacher, (108), 36-41.

Schuler, D. (2021, June). On Beyond Wicked: Exploring the Uses of "Wicked Problems". In Seventh Workshop on Computing within Limits. June.

Schuler, D. (2024). Tools of our Tools? Exploring the Cybercene Conjecture. Communications of the ACM, September.