

## Luddism for Community Informatics

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## Abstract

This paper begins with a reflection on my own history in community informatics, including my recent turn to an appreciation of Luddism. It then discusses a concern that community informatics may be contributing to an expansion of Marx’s four forms of alienation. The paper then moves into a discussion of the data-information-knowledge-wisdom “pyramid” as a potential framework for a revised approach to community informatics and contrasts that revised approach with the potentially unsustainable approach of the field currently.

## Introduction

Congratulations to JOCI for weathering the storms of attacks on academia, rapid technological change, and political turmoil at every geographic scale for the past 20 years. I know it hasn’t been easy. I got into this work even further back when we were just trying to support marginalized people to get access to and use computers. Our hodge-podge computer labs weren’t even networked. We all learned how to cobble together computers from piles of parts that worked for as long as we could keep them upgraded. I stuck with it into the early 2000s. My disillusionment grew as the vaunted “Internet” transformed from a source of information to a clutter of advertisements and fictions masquerading as truths, and simple html coding gave way to dependency on complex content management systems.

## Turning Toward Luddism

Today, I’m revisiting myself of 25-plus years ago, currently building from scratch my own electric guitars, pedals, and amplifiers with nothing more high-tech than transistors and vacuum tubes. I’m rediscovering analog. And preferring it. When I facilitate community planning or project meetings, I use flip-chart paper and markers, rather than laptops and projectors. Some might now call me a Luddite.

“Luddite” has become a pejorative term in our lexicon, and most people who use it probably don’t even know what it refers to. Interestingly, the term comes from a purportedly fictional character, Ned Ludd, who in late 1700’s Britain was said to have destroyed a weaving frame to protest the use of that machine to exploit labor. Weavers and textile workers engaged in various protests and other acts of resistance to worker exploitation in his name into the early 1800’s. The exploitation they resisted occurred on two levels—one was the use of machines to turn out more product faster, and thus cheaper, than individual artisans could match. The other was the consequent de-skilling of those artisans who, to survive, had to give up their independent craft work and instead tend the machines that had replaced their craft skills (Conniff, 2011; Andrews, 2023).

Fast forward to 2023—two centuries later—and the strike by the Writers Guild of America protesting, among other things, the rising specter of artificial intelligence designing to replace humans with

machines in the act of creative writing. The original Luddites would have been proud of their important, albeit likely temporary, victory (Coyle, 2023a;b).

## **The Advance of Alienation**

Oh, but you say, all that technology is leading to a reskilling of so much of the population. But computer programming jobs are projected to decline into the next decade (Bureau of Labor Statistics, 2024). And what are those new skills? They are skills that allow machines to remove us further and further from real work and even from each other. If we go at this from Marx's (1844) four forms of alienation—alienation from the things we produce, how we produce them, each other, and our self—all that computer programming is expanding our alienation not just through the rise of AI, but the continuing computerization of even the most basic tasks. How many of us knit our own sweaters, throw our own pots, craft our own furniture, grow our own food, or even know how to do those things? Not knowing those things, we become alienated. We don't know how the things we use are actually made and we don't know what is even in them or what the making of them does to our environment. We don't know our own skill potential as we become "educated" only for a job rather than for life. We don't know how to make things or fix things. Our relationships are now mediated by digital screens. Because of that technology we believe we are more connected than we ever were, but we know each other less than we ever have because we don't do as many things in physical space together and we consequently don't build trust. Then, of course, we don't know ourselves because our sphere of "doing" becomes ever narrower. Lack of knowledge of the basics of life--plumbing, electrical, mechanical, woodworking, cooking, cleaning, and even caring--hollow out ourselves and narrow who we are to hyper-specialized beings dependent on other hyper-specialized beings for our life-needs. We then become only able to truly communicate with ever-narrowing ranges of people.

OK, so I've now blown nearly half this essay without ever mentioning the phrase "community informatics." It is probably helpful to remind ourselves what we are talking about here. Michael Gurstein, the founding editor of JOCI, elaborated on his initial 2004 definition to say "Community Informatics (CI) is the application of information and communications technology (ICT) to enable and empower community processes." (Gurstein 2007:11). I worried about this definition as far back as 2005, uncertain if ICTs were really enablers, or at least the kind of enablers we really needed. And this was while I was in the thick of practicing community informatics in my community development work (for I was never just an academic—I always had to find ways to put knowledge into practice). And I was always the most concerned about the "enable and empower community processes" part of Gurstein's definition.

## **Data-Information-Knowledge-Wisdom**

So, have we enabled and empowered community processes? Gurstein (2004) took a decidedly agnostic perspective on what the word "community" meant and included people who were connected solely by ICTs with no physical face to face interaction between them. I never did. People only actually live in physical spaces. It is those spaces we most need to protect, preserve, sustain, and "develop" in the sense of organizing each space to support the interdependence of all beings - from great to microscopic.

It is in those spaces that we need to do the hard work of moving from data to wisdom—what is referred to as the data-information-knowledge-wisdom or DIKW pyramid. To my knowledge, this pyramid doesn't show up in the archives of JOCI, however Wikipedia (2024) has a nice accessible discussion of the pyramid that I will adapt here.

- Think of “data” as roughly discrete observations, measurements, or facts not organized into any particular form. Census data, for example, are just all the observations about population, income, age, race, etc.
- When that data is organized into a usable form—a table of population of different races by state, or age, or census tract, and so on—it becomes information.
- Knowledge is a bit more amorphous, but it can be about understanding—an explanation of *why* the information says what it does. Why, for example, are there more Black people in some census tracts than others? Is it because of choice, or discrimination, or some other variable like social networks? Answering that question builds knowledge because it provides answers to the question of why the information—the organized data—is what it is. Of course, that is easier said than done. And *how* the answers to the question of “why” are developed is important, especially when there is a separation between those collecting the data, creating information from it, and building knowledge, and those from whom the data is extracted.
- Wisdom is sometimes collapsed with knowledge in its emphasis on the why, but it can and perhaps should also be about judgement. Knowing answers to the question “why” doesn't automatically lead to a quality judgement about the goodness or badness of something. If we find out that racism is the primary cause of there being more Black people in some places, we may make a different moral judgement than if we learn it is because of networking. And since the why questions are often complex—racism may make it more difficult for Black people to live in some places and networking helps build Black communities that can provide some level of defense against racism—Wisdom can be especially hard to attain. And especially important, if we are to inform policies to combat structural and other racisms that harm so many BIPOC people and communities. Here also, if those from whom the data is extracted aren't full participants, the wisdom derived may be seriously faulty, which is why wisdom is also important back at the beginning stage of collecting the data.

In community informatics, it seems, we have concentrated on the information part, which is the part that the technology is most suited to. And three decades ago, when groups like the Seattle Community Network pioneered participatory technology design, we saw glimmers of how technology could serve rather than dis-serve. But now technology is designed to maximize profit, and end-user participation has been reduced to voting stars on apps. We don't get to figure out what technology is best for building democracy and community because the hierarchical corporate process of designing it undermines both democracy and community.

The scariest part is that undemocratic and anti-community process has led to AI, which is now attempting to impose distorted forms of knowledge and even wisdom upon us. Even my car (one of the newer but cheaper HEVs) makes judgements about how to stay in my lane on the highway, how closely to follow the vehicle in front of me, when it is safe to merge into the passing lane, and so on. For the moment those judgements seem superficially sound, but the AI relieves me of the burden of having to actively practice the data, information, knowledge, wisdom process. We just witnessed an

election in the United States ushering in full-blown fascism, by a population whose self-destructive choices can only result from an enforced alienation from that process.

Especially now, community informatics risks making things even worse by skipping the step where we work to help communities collect their own data, build information from it, develop knowledge about it, and wisdom through it that can feed back to the data collecting steps. If instead we push alienated digital technologies at them that they had no hand in designing, and feed them AI-generated versions of reality where the assumptions and even the information are obscured, we will contribute to the continuing decline of civilization. We would likely do less harm by drawing with sticks in the dirt.

## **Two Futures?**

It seems that, in this context, community informatics has two potential futures. The future we seem currently headed down is to continue on the path of emphasizing technology. That may not be sustainable, for a couple of important reasons. First, we community informatics practitioners are rapidly approaching redundancy. Anyone with the most basic digital skills, technology, and access can use it to just look stuff up. And the people and places lacking those things continue to shrink. Second, the unreflective belief that everyone should be “connected” online—and in certain ways—feels worryingly infected by colonizing arrogance. Those of us from privilege still need to learn the lesson that it is only because of our power that we can dare to deem that certain solutions designed by us can be imposed on others whose lives we neither understand nor share any experience of.

The second future is one that focuses not on the technology, but on the community, and not on the information but on the data-information-knowledge-wisdom pyramid. It begins with communities of place—that old concept that we haven’t given much attention to lately—neighborhoods, small towns, and other places where people encounter each other face to face in multiple roles and circumstances. Those are the places that have become fractured by false leaders and fake ideas, destroying trust in not just each other, but in data, information, knowledge, and wisdom altogether. Focusing back on community potentially transforms the DIKW pyramid into more of a cycle. For communities to decide what data they need requires them to develop wisdom, which is built on knowledge, drawn from information, and created from data chosen by the application of wisdom. Do we have, in community informatics, good models for facilitating such cycles?

There are still roles for ICTs in this process, but ICTs are the supporting cast rather than the star of the show. In fact, Luddism may be a good starting point from which to pursue the “enable and empower” promise of community informatics. Thus, the roles for ICTs must be decided by the community, not the outsider. ICTs are just tools, and it takes a lot of process to decide what tool to use. You probably won’t use a wrench to build a birdhouse (though you might, depending on the purpose and the design). Each community deserves access to the full hardware store of tools, not just the single tool that the single corporation or government shows up to offer them. That also means they need the judgement to choose the tools, the knowledge to know what the tools do, the information on what tools are available, and the data from which to move to information, knowledge, and wisdom to rebuild community. Can community informatics provide the support needed for communities to do that?

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