

## DISCUSSION

**Having taken a comprehensive look toward crowd work through the piecework lens, we can't help but take a step back to consider a number of meta-issues that arose in our analysis.** Stated briefly, these issues are 1) the hazards of predicting the future, 2) polarizing tendencies, and 3) deciding our research agenda. We will attempt to grapple with these questions here based on what we brought up in the earlier case studies.

### The Hazards of Predicting the Future

The past can't be a perfect predictor for the future; as [13] points out, "it would be wrong to conclude that in the realm of digital labor there is nothing new under the sun" [13]. Many of the challenges that *Dynamo* overcame — determining trustworthiness, ensuring anonymity, etc. . . [12] — were relatively unique challenges precipitated by the affordances of the Internet, specifically that people could (and often do) contribute to communities in a one-off manner [11]. The Internet seemed to make this kind of loose affiliation feasible where before it wasn't [5, 12].

But this does not mean that attempting to draw meaningfully from historical scholarship would be folly; as we have shown in the preceding sections, enough of piecework can and does inform crowdsourcing that we should take this as a cue to look first for historical framings on phenomena that we encounter, as this work can outline both the mechanisms that we should expect to play out as well as one of the (perhaps many) possible futures.

In particular, the predictions that have emerged surrounding crowd work have run the spectrum from deep pessimism to exuberant optimism. [a12: should I cite this?] In the next section, we will use the piecework foundation which informed our case studies to trace out possible Dystopian and Utopian futures for crowd work.

### Polarizing Tendencies

1. It's easy to think crowd work as heading toward some extreme
2. Activists describe speculative workers as having "essentially been turned into modern-day slaves" [3].
3. Meanwhile, advocates describe it as "a project of sharing aimed at providing ordinary people with more economic opportunities and improving their lives. . . ." [7].
4. There may be truth buried in both claims, but the important takeaway is that the closest we can get to a single truth is somewhere in the middled, buried in nuance.
5. There may be a Utopian world at the end of the tunnel that is our world now: all work that we engage in could become speculative and risky; the layers between us and our managers might increasingly become "defective (simple, observable)" algorithms [2] — the same ones which already seem to frustrate on-demand workers on Uber and other markets for labor [10, 12, 8].
6. On the other hand, the future of crowd work could be eminently promising: piecework's nascent years were nothing short of grim, but they precipitated a century of the

strongest labor advocacy the world has ever seen. In India, workers across the nation engaged in the largest labor strike in human history — perhaps as many as 150 million [1]. Arguably the Internet has made collective action on an unprecedented scale much easier.

7. So are we heading toward *Mad Max* or . . . [a12: is there a Utopian future movie?] If we do nothing, probably somewhere in the middle. It's possible that the difficulties of enforcing laws on multinational corporations is tipping the balance of power in the direction of corporations, in which case things will get worse; but arguably we can affect change on the trajectory of crowd work, benefiting from everything piecework scholars have learned about collective action and governance among workers, while also avoiding some of the perils they faced.

### Deciding our Research Agenda

1. We need to take a step back from the work that's been done so far and think about where we are going with the crowd work research agenda.
2. Piecework researchers pointed out long ago that piecework is problematized by the fact that "piecework does not compensate workers for time spent switching tasks" [4] — we've studied this phenomenon in crowd work [9, 6] and we should consider whether this remains a worthwhile area to explore unless we're actually finding ways to minimize the many forms of costs of switching tasks.
3. What questions are we trying to answer? If, as we assumed in the previous section on polarizing tendencies, our driving motivation is to empower workers, we

## References

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