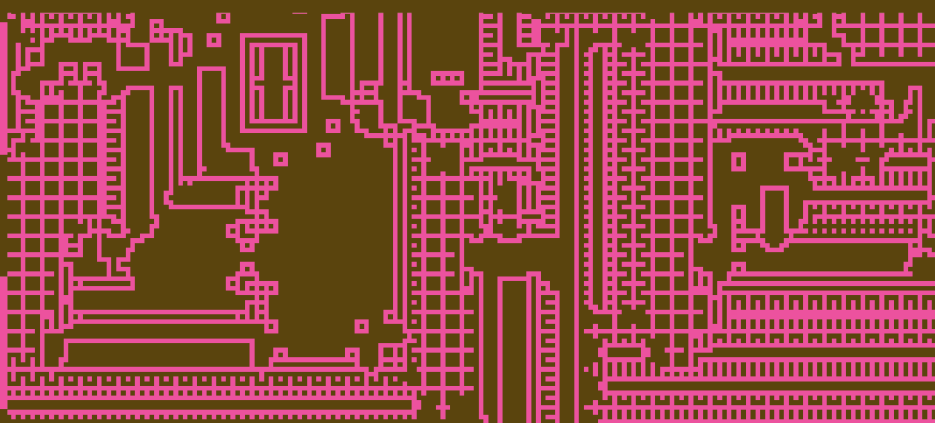


Distributed AI Research Institute + Collective Action in Tech

Bits *in the* Machine



A Time Capsule of
Workers' Stories in the
Age of Generative AI.

Acknowledgements

This zine is a collection of perspectives from the following participants. We're sincerely grateful for the time and candor displayed in every interview.

Abbie Harper (she/her) is a neurospicy organizer and professional troublemaker in Astoria, Queens, NYC. In 2022, Abbie successfully unionized her Helpline coworkers at the now infamous National Eating Disorders Association (NEDA). She is currently pursuing an MA at CUNY School of Labor and Urban Studies, with a focus on social impact cooperatives, trauma-informed leadership, and workplace democracy. "Solidarity is our greatest tool for change."

Brian Shin is a television and screen writer and a WGA member.

Erik Nicholson spent 30 years serving farmworkers through service to the United Farm Workers and PCUN, both labor unions. Now he works with Semillero de Ideas, a non-profit dedicated to engaging farmworkers to lead and foster innovation in agriculture.

Eryk Salvaggio is an interdisciplinary systems design researcher and new media artist with the Algorithmic Resistance Research Group. His work explores emerging technologies through a critically engaged lens, testing their mythologies and narratives against their impacts on society, culture, and the environment.

Jane Ruffino is a content designer, UX content strategist, and UX writer with a background in content strategy, UX writing, marketing, journalism, documentary, research, and archaeology, all different ways of connecting the human-behavior dots.

Julian Posada is an Assistant Professor of American Studies. His research integrates theories and methods from information science, sociology, and human-computer interaction to examine how technology is developed and used within various historical, cultural, and social contexts. His current book project investigates the dynamics between human labor in Latin America and data production in the artificial intelligence industry.

Michael Morgenstern is a filmmaker, technologist, and culture hacker. He has produced and directed three films in over 70 festivals worldwide. Michael focuses on the interaction between social media, news cycles, interaction design, and cultural discourse, and how disinformation is propagated. He is CEO and Creative Director of This is Definitely Real, an alternate reality media company telling interactive stories online.

Gathered during the Generative AI hype cycle, this collection of worker perspectives is a window into the complex relationship between workers and the Artificial Intelligence (AI) technologies we use (or are forced to use) and produce, but also resist and subvert.

“AI” is not one type of technology, and, in many cases, it represents some very old technologies with a veneer of marketing. For our purposes it includes: chatbots, image generators, and different statistical models which produce synthetic media. We focus on these because they are most often imagined to supplant the critical artistic, creative, and care-oriented labor of working people.

Each worker interviewed for this project is intimately involved in shaping the future of AI across all aspects of work and society. The collaborators that conducted these interviews and crafted this zine are an interdisciplinary group of researchers, workers, and artists who believe that AI will reflect the faults, biases, and harms of the status quo — until we work together to demand participation and ownership.

Like all workers before us, we are being forced to build the technology that cleaves workers from the value and power of our collective labor, disguised as a promise of liberation. We hope the voices reflected in this zine are a reminder that you are not alone and there are untold numbers of workers who are rising up together to build a more just, imaginative, and vibrant future for everyone.

Creative Joy

The act of co-creating with Artificial Intelligence technologies can be full of joy and unlock a multitude of creative expressions. Remembering our humanity as we remain critical of AI is an essential part of building powerful solidarity.



Things I used to see a lot a few years ago was labeling images, a lot of data, for example, for self-driving cars, and so on. Now, what we're seeing emerging is generation of data from human professionals. All of this is the new push towards generating data from scratch or in a more controlled environment, as opposed to just scraping data from the internet and having to annotate or label that data and verify the outcomes of the algorithm trained on that data. So I think that's one of the most significant shifts since I started doing this research.

— Julian Posada

People are using this – billions of people are using this over and over again everyday, people love it. It is a technology that people love. So I feel like it's going to be here, because it is tapping into something about our desire for novelty, our desire for interaction...



— Eryk Salvaggio



I use AI all the time. Principally, I use ChatGPT as a conversation partner. So if I'm looking for brainstorming, I'll throw a question to ChatGPT and ask it some follow ups and sometimes it says something that just triggers my brain. So a lot of what I've been writing is sort of half me, half ChatGPT... One that I really liked, I had it write a joke for me. We were doing a John Oliver type character, and I asked like “Please rewrite this paragraph as a John Oliver joke.” And it just nailed it. And it was like, it was shocking to me how good it was.

— Michael Morgenstern

Structural Power



New technologies are often framed as a positive force for the working class that will liberate us from toil and democratize tools for upward mobility and creative expression. But technology can also be wielded by the elite as a tool for further concentrating wealth and power. Managers frame these tools as a means of making our jobs easier; in reality, they can also be used as an excuse to cut workers out of the equation. We must be aware of how the AI we build and use buttresses the status quo.

Tech companies will say, “oh, we’re going to disrupt. Jobs will be lost here but jobs will be created here. Right? Well, location matters... AG is the industry in rural America, rural Mexico, Canada, rural world. The degree to which you start extracting wages from these rural communities and redirecting them to urban centers, far, far away those communities will collapse. The wages and revenue generated by Ag are the lifeblood of these rural communities, those funds are invested in houses and rent, used to buy food and clothes from local merchants. So the degree to which that revenue is being taken away from workers and then sent to San Jose Silicon Valley, it’s game over. And there are no other jobs here.

— Erik Nicholson

How does the way these technologies are introduced to the public uncover the intentions of the ownership class?

We were siloed in an organization where we’re not being told it was going on... we knew about Tessa, [the chatbot on the National Eating Disorders Association website]. Tessa was on the website for a year before they announced that it would be the replacement [for workers].

— Abbie Harper

Somebody shared a job ad and was like “can you believe they’re saying you need seven years working with AI? It’s ridiculous!” and I’m like “oh AI has become synonymous with generative AI.” AI and machine learning are not new, but it’s like the hype around ChatGPT has erased so much collective memory that AI existed before.

— Jane Ruffino

How do we see AI reinforcing existing inequities across the working class and immortalizing bad practices?

If a solution is not tailored to protect the most oppressed people and most exploited people, ...the people who get the most systemic harm and the most marginalized people. If these solutions don’t tackle that, what are we doing?

— Abbie Harper

There’s the vulnerability of the system, and there’s the vulnerabilities that the system inflicts on vulnerable people, communities, and people in general. My orientation is firmly on the side of, let’s find the damage that these things can do, so that they can’t do that damage...I know my ability to do that is quite limited, but I’m trying to represent the harm and risk that it might actually pose to actual people. And so a lot of my interest is in the stereotyping effects of generative AI, and how to circumvent those, how to break those things, and how it might amplify misinformation, disinformation.

— Eryk Salvaggio

How will VCs use automation productivity gains to push out smaller, established players and build monopolies?

I live in the heart of the tree food industry in the United States. Somewhere between a third to a half of the entire industry is up for sale. In order to adopt digital technology, you have to tear out all of those orchards at a cost of \$50 to \$80,000 an acre and replant in what they call high density trellises. Most of the growers are tapped out in terms of their traditional lines of credit and many growers feel the only alternative they have is to cash out. We're seeing tremendous disruption in terms of the ownership patterns of Ag. Equity capital and other outside entities are taking over family owned operations.

— Erik Nicholson

I think Hollywood is going to die in a certain way. Like with similar technological changes, there'll be a totally new way of doing business that outsiders really innovate on, and then half of the established businesses will buy up those outsiders or figure out how to adapt and the other half will die.

— Michael Morgenstern

Class Conflict

As with many new technologies, the ownership class is already using AI to defang and devalue labor and oppress workers. By threatening to replace segments of labor with AI, capital undermines labor's leverage and our ability to strike.

If [movie and television] studios had a way to develop technology to replace us, they would do it in a heartbeat right? They would do that in every single labor workforce, any corporation would... The way I see studios manipulating this is having AI write the first draft. The first draft doesn't have to be good, it probably won't be good. But the fact that the first draft by an AI could be classified as the first step means they can now manipulate it to where the actual writer... can do all the work will rewrite it, they know that the first draft is shit, and they're going to get paid less money... The studio is going to say 'Well, you have this AI software that we've developed and spent millions and millions of dollars on, you don't need a staff, you only need the AI and one person', and because Hollywood is such a desirable industry that many people want to get into, I think that people are going to accept these situations where they have to do the work of ten people themselves because there is such a desire to work in this industry and such a scarcity of jobs... I feel like that is part of the reason we really pushed for minimum staff sizes on rooms, was to guarantee larger numbers of employment for our workforce and to prevent studios from using AI as a crutch to employ less people.

— Brian Shin

I would never put my research into ChatGPT, because it would just get absorbed.

— Jane Ruffino

If you track the VC investment into digital tech it has skyrocketed. It's gone from \$10s of millions to hundreds of millions to billions in the last decade. The highly exploitative nature of tech development, in terms of the ability to exploit labor to create a cheaper and cheaper and cheaper robot arm, has increased to the degree that now you have economic viability to deploy this technology, in what traditionally has been perceived as a low margin industry, such as AG.

— Erik Nicholson

The companies building AI and implementing AI as a supplemental workforce often give workers empty promises of more efficient work to obscure the threatening nature of these choices.

It was... like nothing like we expected and even then NEDA kept saying “no, no, we’re not replacing you... We had been promised [that] more training is coming. This is coming. Active improvements... “you’re gonna be logging less”

— Abbie Harper



I feel like a corporation can say “No, you’re right, we won’t use your work for training data, we promise”, but then they can do it. That’s tough to regulate.

— Brian Shin

Once you create network effects, you stop using the bonuses that you had before to create those network effects, and then wages start to decrease, which is what happened in other platforms like Uber and countless others in the gig economy.

— Julian Posada



We saw this entrenching of bad practices and inappropriate uses of data with things like “growth hacking” and obsessions with “dopamine” as if neurotransmitters are chocolate sauce in the brain. The idea that you can somehow shortcut human behavior was just shocking to me. But part of it was that a lot of marketing is seen as feminized work, and therefore undervalued, so why not skip the persuasion and storytelling and just get people to do things immediately. Now AI is being used as a “quick fix” based on a similar misconception: that thinking, feeling, storytelling work is not serious, only numbers are serious. These executives and tech leaders think they’ve reinvented communication, but it’s another iteration of, “how can we replace girl jobs with math?”

— Jane Ruffino



Exploitation

AI relies on precarious human labor at every stage of development. Job insecurity keeps workers quiet and, at the same time, shared precarity creates space for organizing and solidarity.

So in the case of Venezuela, all of the workers who access these [AI training] tasks were doing it because of the crisis in the country. There’s hyperinflation, lower quality of services, high unemployment rates, so the main drive to produce data [for AI models] is to have access to a remote type of work that is paid in US dollars. This is how many people, so many people ended up working for these [AI] platforms... People make around in worst times \$5 per week, good times \$25 per week, and during a good moment, it was around \$60 per week... There were some attempts [to organize for better working conditions], especially from one Facebook group, where people were discussing how the Filipino workers had done a strike and how the strike was successful and they got a higher pay. But this single Facebook [discussion] generated a lot of backlash from the workers themselves, because again, for them, not working means not having income for the household... We have an example of basically, almost a libertarian dream, because the state is not present anymore. The employer is not present anymore. You’re on your own. And that’s a good case study for what would happen if we don’t have a state present, and we don’t have an employer present or what would happen to communities who depend on sources of income through the gig economy, which is really like one of the extreme forms of piecework mediated by technology that we have today.

— Julian Posada





I think a lot of illustrators have a right to fear that AI is going to displace them, but I don't think that is actually as connected as they think to their style being in the data set. No one needs to go in and replicate your style to not hire you in the first place – they can just create something else that looks suitable. And that's also a fear, this rise of automated mediocrity, where it's just, "looks good enough, we'll put it on the article." That is also the bigger concern, that cheapens everybody's labor, that cheapens everybody's work, and that cheapens, not to be highfalutin, but that cheapens humanity in a way – the humanness of our work.

— Eryk Salvaggio

Everybody's talking about, "can AI take your job?" but AI is already taking your work... These AIs, these models are taking in all of the product content that we've been writing all this time. And I'm like, "hold on a second. I gave permission to the company I work for to use my product content however they want, but I didn't give permission to a large language model to take work. But they're taking our labor and using it to erode labor... When we think about why people are being pushed out of their jobs, and we're being told it's AI, it's not AI... AI can't do anything. You know, whatever about... object-oriented theories, even if you believe that objects have agency, an object can't fire you. It can't make the decision. And I think the anthropomorphizing of AI is such a pain in my ass.

— Jane Ruffino



I was actually on the cover of the LA Times because I had a sign talking about AI, that said "ChatGPT wrote this", kind of mocking things. As I was thinking about it, I think it's some media companies trying to get clicks through fear. I think the fear of automation taking over our jobs is a legitimate one. I think when the public hears about the threat of AI, of robots taking over, they understand that they have the same shared fear and context for their own lives.

— Brian Shin

user, AI can increase workloads by forcing workers to clean up AI mistakes.

The value proposition these startups are putting forward is that you can replace workers with their technology. The reality is that's not true. Take for example the laser weeder. It can only burn emergent weeds that are several days old max. So if you don't have someone monitoring every field and scheduling this weeder in a timely way, you've just wasted a tremendous amount of money in acquiring this technology. Then you've got to make sure that you have someone evaluating the laser weeder, is this actually getting there in time and working? Then you have to have someone to actually do the planned maintenance. And then here's the punch line, these things break down from time to time, who's going to repair it?

— Eric Nicholson

I never really feared AI in terms of replacing what we do specifically as writers. I have a couple writer friends that are obsessed with it and they all downloaded ChatGPT and all that, they tried using it to get the technology to do our job for us – cause you know, why not? It's easy, but they discovered (and I haven't messed around with it too much though), that the technology is capable of recognizing patterns of grammar and verbs, but it's not capable of things like writing jokes. You know, like joke writing that comedy writers do. All the technology could really do was regurgitate bad jokes, and the jokes don't always make sense either.


— Brian Shin



Solidarity



Despite these challenges, workers are standing up and demanding ethical accountability for artificial intelligence.


 Simply maintaining the status quo and keeping this technology out, even if that was possible, is not a win. This industry is desperately in need of innovation and modernization, but driven from an agenda that is centered in rural communities, centered in human dignity, centered in having a vibrant food system. We want a different set of moral values. But it's the workers actually doing the work who need the skills, the ability, the competence to actually bring these ideas to the fore. So we can truly innovate Ag in a way that builds our food system, rather than hands it over to venture capitalists.

— Erik Nicholson

I think writers are very tech-savvy in the modern era, not just the younger writers but also the people in charge of what we call “the Hit Squad”, that go to the production and shut down the productions. That was all organized via Discords, Telegram, all the shady messaging apps... The legacy of this strike is honestly survival of our industry... it saved the Writers' Guild, it saved the industry of screenwriting. I think it really created the structure of how to organize and stand up against corporations, and how the workforce can dictate to corporations what they can and cannot do to a labor force. I think that's something that can be replicated by other unions... It saved the industry of screenwriting and it really created a template for us to fight future battles and for other unions to fight future battles too.

— Brian Shin




 It's still about standing up for each other, and making sure your union is political enough, making sure it's radical enough... Don't make your union so palatable to everyone that you give up your power, because I think that just replicates the problem that people are doing with AI, which is making themselves so friendly to anyone who wants to implement AI that they give up all their power.

—Jane Ruffino

“We were all like, “uh, really?” [in response to the release of an AI bot for the National Eating Disorders Association Hotline] and in fact in part of our bargaining we wrote a letter to the whole board and the CEO that was like “You cannot possibly be thinking this through. This is so harmful and dangerous. What are you doing?””

— Abbie Harper



 We're not taking control of the conversation, and I think more than anything, that's what we need to do. We need to use our power of being good at words to stop using that to be pawns and be like “I'm going to get a seat at the table.” Of course, on your day-to-day basis that's what you want, but we are writers. We have so much power, if we have the right platform and if we are good at bringing people together, to just start seeding the conversation with more important things.

—Jane Ruffino

We've been really bad at organizing as a society around technological change, and we've just accepted the ways that corporations hand down what change looks like. So I've been really curious about the ways that people use technologies, and in ways that can be subversive.

—Michael Morgenstern





There's a lot of public shaming of the people using AI going on. I don't think shame works, and I don't think public shaming is a thing we should be leaning on as a tool... Polarization just drives people away and we're not able to have this meaningful conversation about finding common ground, about figuring out strategies that help all of us... But, building solidarity between artists who are by and large precarious, disconnected, independent freelancers working in digital art, working in concept art, working in illustration, do not have union power, do not have bargaining power, and combined and together, right, I think that solidarity is the only way that we could have a meaningful conversation... Friction shapes the form the technology takes, and then ten years after all that friction, all that protest, all the strikes, the tech companies will say "we've always done it right, trust us!" But then we need to reintroduce that friction. It has always been friction that shapes the technology to be the things we want - it's never tech companies... I firmly believe we need to pivot to a data rights conversation as opposed to a copyright conversation, because the copyright conversation, based on the trajectory we're seeing now, is not going to win.

— Eryk Salvaggio



If you think this is about harvesting apples, then you think Facebook's about connecting friends and family. Just don't be naive, you are giving away tons of data. And that will be concentrated and mined and used against you.

— Erik Nicholson

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