Traveling Bands on the Information Superhighway:
Will the Data Economy Leave Creatives Behind?

I'd seen them in class for months – doctors, teachers, even members of the military. From Bogotá to Cali, they'd joined us in classrooms for free data science training, part of an adult learning initiative sponsored by the Colombian government and led by my international company. We'd become close, sharing coffee and arepas on breaks from work. Now we were together on Zoom, a pandemic improvisation, in homes around Colombia (and the world) for the program finale.

The highlights of this event were students' Final Projects. Teams had worked for months to apply their new data skills to pose and answer real questions. *Where should we put stop lights in Medellín to encourage pedestrian safety? How can we reduce recidivism? Can weather patterns predict rural crop yields?* Each team presented their findings to a panel of experts and fellow students.

This virtual event was a showcase of an important truth: even one of the most analytical fields, data science, is a deeply creative enterprise. It's based on invention, which stems as much from thinking openly as it does from technical skill. Data, that most uniform and rigid thing, is a tool best placed in the hands of the non-conformist. I wouldn't have known this even three years ago, when we started these training programs. But since 2019, my team has launched similar initiatives for thousands of people in dozens of countries – from women data scientists in the Middle East to frontline workers in America. No matter the audience, our primary goal is to inspire in people the discipline of creative, data-centric thinking. We align our work with Peter Drucker's framing in *Innovation and Entrepreneurship*: "Innovation is… the means by which [we] exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced."[1]

Yet data is also disruptive. It has fundamentally changed every life today, including those who call themselves creatives – and these disruptions are not always friendly. We certainly live in an era when there is change to be exploited, as Drucker wrote, but to what extent does this new economy (the "data economy", you might say) catalyze creative thinking and production? Data may the driving force of tomorrow: "the new oil," as Mathematician Clive Humby said, presciently, in 2006.[2] However, the algorithm-led order has overpowered many creatives, often relegating them to precarity via "winner take all" economics and a system that returns their

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[1] Peter F. Drucker, *Innovation and Entrepreneurship*. (New York, NY: Routledge, 2015), 36-37.

[2] Guardian News and Media. (2013, August 23). Tech Giants may be huge, but nothing matches Big Data. The Guardian. Retrieved May 31, 2022, from https://www.theguardian.com/technology/2013/aug/23/tech-giants-data

rents to the owners of digital infrastructure (in this case, big tech companies). If we value creativity – as Peter Drucker did – then we should be troubled by this dynamic.

To argue this and explore solutions, I want to start by asking whether there is a creative "class". I then discuss how we might segment artists, and whether they all succumb to the pressures above.

Is There a Creative Class?

There was no social media when political theorist Richard Florida coined the idea of the "Creative Class" in 2002. In his book *The Rise of the Creative Class*, Florida proposes that modern capitalism features a subset of knowledge workers – engineers, architects, poets, and more – who drive that economy's creative innovations. This "new class" of workers "draws on complex bodies of knowledge to solve specific problems," and enables change in post-industrial economies.[3]

In hindsight, this idea isn't exactly wrong. Professionals of many stripes can reasonably be called "creative" – or, in some cases, even take the noun of *creatives*, as do many in fields from graphic design to urban planning. Yet I disagree that this constitutes a "class" in any useful sense. Classes are defined by their shared interests and political incentives. A *working class* in a developing country, for example, may recognize the conditions of their workplaces and argue for reforms, be they to healthcare, pensions, or working conditions.[4]

The Creative Class as defined by Florida, however, does not possess these features (in part because it's too large: Florida argues that the Creative Class encompasses "30 percent of the nation's workforce"). A wealthy Industrial Engineer in Dallas, Texas does not share many "class" interests with a freelance poet living in Queens, New York. They're each creative, to be sure, but their treatment in the new economy varies as widely as their likely preferences in terms of public policy. That Engineer's interests align better with those of the oil baron across the street, while the poet's interests do so more with those of the delivery driver parked on her stoop. For this reason, Peter Drucker was extremely prescient when he defined "knowledge workers" by their style of work but did not read into them a monolithic political identity.[5]

But if creatives are not exactly a class, how should we define them?

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[3] Richard L. Florida, *The Rise of the Creative Class.* (New York, NY: Basic Books, 2002), 69.

[4] Thomas. (2012, June 18). Canaries in the coal mine. The New York Times. Retrieved May 31, 2022, from https://campaignstops.blogs.nytimes.com/2012/06/17/canaries-in-the-coal-mine/

[5] Drucker, Peter F. *The Effective Executive*. (New York, NY: Harper & Row Publishers, Inc., 1967)

Traveling Bands on the Information Superhighway

Perhaps a more useful way to segment creative people is by those who do creative work in the context of a company hierarchy (graphic designers at an agency, architects at a firm, etc.), and those who create art independently, regardless of medium. I want to consider that latter group, which encompasses visual artists, musicians, writers, and more.

For these individuals, it is perhaps the best time in history to *create*. New tools make writing, composing, and finding your audience cheaper than ever. Where an aspiring artist used to travel long distances for expensive art schools and apprenticeships, now she can use the internet to learn for free from the world's best teachers. A budding fiction writer doesn't need to go through the editorial process and publishing gatekeepers, only start a blog.

But think about that dynamic. Implicitly, the obsolete art school teacher and magazine editor have seen their work's value diminish because their once-private information and authority has been decentralized. What's more, it's now largely monetized by big tech platforms (e.g., Facebook, YouTube). In a similar fashion, when that artist grows up, she will have to sell her work through those tech platforms, which have immense market power over creatives. The owners of the information superhighway charge high tolls, direct traffic, and monopolize elements of the creative process. Ask any musician, or designer, or blogger, and they will tell you that more of their output is done over these platforms, and that the financial terms of this labor are not usually tilted in their favor. They may mention that customers can copy or pirate work more easily than ever, or that the same services that connect them to audiences also siphon high fees. The pandemic only worsened this tech-dependence, while also shuttering live acts for performers around the world.[6]

Take a concrete example. My friend is a working musician living in the American South. She plays the bass, records albums, and tours with several different bands. It's a great time for her to *create* the art – she has a recording studio at home and can mix records on a laptop. Zoom lets her collaborate live with bandmates while on the road. Yet it's a constant struggle for her to monetize this work. The dominant streaming service, Spotify, pays about $0.0004 per song stream, a fraction of what sold albums would have earned decades ago.[7] The algorithm drives

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[6] The New York Times. (2021, March 11). 75 artists, 7 questions, one very bad year. The New York Times. Retrieved May 31, 2022, from https://www.nytimes.com/interactive/2021/03/10/arts/artists-coronavirus-lockdown.html

[7] Dellatto, M. (2022, April 14). Spotify says it paid $7 billion in royalties in 2021 amid claims of low pay from artists. Forbes. Retrieved May 31, 2022, from https://www.forbes.com/sites/marisadellatto/2022/03/24/spotify-says-it-paid-7-billion-in-royalties-in-2021-amid-claims-of-low-pay-from-artists/?sh=7168ad4fa0db

clicks – it works for the big names, but emerging artists and their fans often have to "game" it just to survive.[8]

If we look at more capital-intensive forms of art, like filmmaking, we see similar dynamics at play. Plenty of ink has been spilled to discuss the "Marvel-ization" of movies, as superhero films and sequels displace mid-level dramas intended for "serious" audiences. Perhaps this shouldn't be a surprise. Netflix and Amazon, which now produce and distribute films (and even regularly win Oscars), see the economic value in churning out films with cultural cachet and appeal for international audiences. It's a highly lucrative cycle that can prove vicious for budding filmmakers looking to experiment. We won't know for years, or perhaps ever, how many of tomorrow's Wes Andersons and Jane Campions it has sidelined. Whether capital-intensive or easy to produce, the distribution channels of today's art have made the artists' life difficult.

Toward the end of his storied career, Peter Drucker gave a wide-ranging interview to the *LA Times* where he foresaw these profound shifts in the new creative economy. "The great achievement of the 19th century was the ability to make people move," Drucker reflects. "The great breakthrough of this century is that we can move information and ideas easily."[9] Drucker's insight echoes his general theory of innovation and is the fundamental reason that I think the "passion economy" is a troubling concept, a double-edged sword.[10] Technology has enhanced the *creative* possibilities of art, but our political economy works against creators via big tech ownership of distribution.

Creatives and Capitalists

How can we correct for this, and make sure creatives capture the value of their work? I believe government is the only institution capable of enforcing this kind of change at scale, through actions like regulation and antitrust enforcement against big tech. Here, however, I want to look at the human side. For this, we'll return to those Colombian students I've been working with since 2019.

They, like all practitioners and entrepreneurs in the data economy, must keep in mind not just firm welfare, but society. As Peter Drucker captured, "Leaders in every single institution and in

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[8] How to game Spotify and Instagram's algorithms to help artists. VICE. (2020, October 28). Retrieved May 31, 2022, from https://www.vice.com/en/article/xgz8p3/how-to-game-spotify-and-instagrams-algorithms-to-help-artists

[9] Los Angeles Times. (1997, February 2). Peter Drucker: On L.A. vs. San Francisco, downsizing and Newt the Entrepreneur. Los Angeles Times. Retrieved May 31, 2022, from https://www.latimes.com/archives/la-xpm-1997-02-02-op-24669-story.html

[10] Peter F. Drucker, Managing the Non-Profit Organization. (New York, NY: Routledge, 2012), 10-14.

every single sector… have two responsibilities. They are responsible and accountable for the performance of their institutions, and that requires them and their institutions to be concentrated, focused, limited. They are responsible also, however, for the community as a whole."[11] Algorithms are especially ripe for this managerial control, because they conduct real-life decision-making without conscience. Left on their own, facial recognition algorithms might fail to recognize diverse faces and banks' lending formulas may discriminate against minority home buyers.[12] Algorithmic bias is as real as human bias. In training the next generation of data professionals, we labor to impart these facts. (That Final Project on reducing recidivism, for instance, would not merit our respect if it only served to entrench or automate existing racism in the criminal justice system.) Professionals here, moreover, should consider implications that their work will have on more diffuse forms of suppression – like suppression of working artists. Education of the kind we've done in Colombia is a start.

Peter Drucker's management theories illuminate these needs because every leader of tomorrow will need to be data literate. It's not enough to manage teams and leave the math to people in back rooms. Those who manage enterprises which deal in creative output may find new forms of organizational design. "One thing is almost certain: in the future," wrote Peter Drucker, "there will be not one kind of corporation but several different ones," based on how each enterprise in a particular sector "responds to the changes in its workforce, technology and markets."

We must recognize the evolving nature of the workforce, and the fact that the creative workforce is a valuable and fragile component of our society and economy. To give them the incentives they need to produce (not to mention livelihoods needed to survive), innovators must reconsider how platforms disburse rents from creative production, returning more to poets and pianists if we do, in fact, want to preserve their art. The information superhighway is here to stay. Will we be willing to work so creatives can travel it?

Word count: 2142

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[11] Maciariello, J. A., Drucker, P. F. (2008). Management Rev Ed. United Kingdom: HarperCollins., 57-66

[12] Mullainathan, S. (2019, December 6). Biased algorithms are easier to fix than biased people. The New York Times. Retrieved May 31, 2022, from https://www.nytimes.com/2019/12/06/business/algorithm-bias-fix.html