

Food delivery



The **Food Delivery** sector refers to digital, on-demand platforms for ordering and paying for prepared food and, increasingly, groceries and other retail items. Restaurants/retailers fill the orders and couriers deliver them to customers within a prescribed timeframe.

Last Mile / Last Link: World's Biggest e-Commerce Food-Delivery Companies

Company (HQ)	Private or Publicly-traded	2020 Revenue US\$ Millions	Business Focus / Notes
Meituan (China)	Publicly-traded (Hong Kong, OTC in USA) FY end 31 Dec. 2020	9,604 Food Delivery ¹ (Total revenue: 16,637)	So-called super app service company: food delivery (restaurant and grocery); group buying; movie tickets; hotel and travel booking (with ownership stake in hotels), crowdsourced healthcare (until 2021), pet care.
Deliveroo (UK)	Publicly-traded (London, OTC in USA) FY end 31 Dec. 2020	5,263 ²	Restaurant food delivery; posted a loss of US\$309 million in 2020. ³ Amazon bought 16% of the company before its “disastrous” IPO, March 2021; ⁴ Delivery Hero owns 5%. Launched Deliveroo Hop – grocery delivery – in London in 2021.
Uber Eats (subsidiary of Uber) / Postmates (USA)	Publicly-traded (USA, Mexico, Europe) FY end 31 Dec. 2020	3,904 ⁵	Uber Eats acquired privately-held Postmates July 2020; divested Uber Eats India in exchange for 9.9% ownership stake in Zomato; completed acquisition of Cornershop Cayman – online grocery delivery in Chile and Mexico – in June 2021. ⁶ Delivery segment reported operating loss in 2020. ⁷
Ele.me (China) “consolidated subsidiary” of Alibaba Group (acquired 2018)	Publicly-traded (Alibaba is traded globally) FY end 31 March 2020	3,593 ⁸	Delivery of prepared (restaurant) food, groceries; integrated with Koubei, Alibaba’s restaurant guide platform. In 2021, both became part of Alibaba’s new Lifestyle division, along with AutoNavi (mapping app) and Fliggy (travel app).
DoorDash (USA)	Publicly-traded (USA) FY end 31 Dec. 2020	2,886 ⁹	Food and grocery delivery in the USA, Australia, Canada and Japan. Posted net loss of US\$461 million in FY 2020. ¹⁰

Just Eat Takeaway / Grubhub (Netherlands)	Publicly-traded (London, Europe, OTC in USA) FY end 31 Dec. 2020	2,850 ¹¹ (includes Just Eat's 2020 revenue; excludes Grubhub's 2020 revenue of 1,800)	Delivers food and grocery. Takeaway bought Just Eat (UK) in 2020 and Grubhub (USA) in 2021; Delivery Hero owns 7.4%. Posted US\$168 million loss for the FY. ¹²
Delivery Hero (Germany)	Publicly-traded (USA, Europe, London) FY end 31 Dec. 2020	2,819 ¹³	Food, groceries, flowers, pharmaceuticals delivery; operations in 50 countries; in 2020, acquired Instashop (Middle East, North Africa), Honest Food Company GmbH (virtual kitchens, Central Europe) and Glovo's Latin American food delivery operations; grocery delivery via "DMarts" in Middle East and Asia and via foodpanda in Germany; Prosus (tech investor giant) owns 27%. Posted US\$1,020 million operating loss in 2020. ¹⁴
iFood (Brazil)	Private Reporting for calendar year 2020	494 ¹⁵	Food delivery in Argentina, Brazil, Colombia (joint venture with Delivery Hero), and Mexico. Company is a subsidiary of Movile (Brazil), but Just Eat Takeaway holds a 33.3% stake (Prosus is Movile's majority shareholder); acquired SiteMercado (online grocery sales) in 2020.
Swiggy (India)	Private FY end 31 March 2020	375 ¹⁶	Subsidiary of Bundl Technologies Private Limited; prepared food (restaurant) delivery; cloud kitchen; grocery delivery via Swiggy Go; reported loss of US\$508 million in 2020; ¹⁷ Prosus (tech investor giant) holds 40% stake in Bundl Technologies.
Zomato (India) (Uber has 9.99% ownership stake)	Publicly-traded (India); IPO July 2021. FY end 31 March 2020	370 ¹⁸	Prepared food (restaurant) delivery; reported loss of US\$322 million; ¹⁹ acquired Uber Eats India Jan. 2020; restaurant reservation booking; grocery delivery; owns 9.3% of Grofers (grocery delivery); supplier to restaurants via Zomato Hyperpure.

Source: ETC Group Notes: 1) Ownership stakes noted in the table reflect the situation in mid-November 2021. **2)**

Differing fiscal-year reporting periods were unusually consequential due to the global coronavirus pandemic. App-based food delivery usage increased when and where consumers experienced lockdowns; therefore, the financial impact of the lockdowns may be unequally reflected in company revenues (e.g., companies with fiscal years running 01 April 2019 to 31 March 2020 do not reflect the full 'positive' impact of the pandemic on business operations).

Historically, ETC Group has considered consumer-facing Food Retail the industrial food chain's last link. Now, for the first time, we highlight companies that cover the "last mile" – those that enlist couriers – who drive cars, ride motorcycles or bikes – to deliver food into consumers' hands at their home or office door. The sector was revving up before the Covid-19 pandemic, but 2020 saw turbo-charged growth as food delivery became a frontline service in the midst of lockdowns. Nonetheless, the sector's pre-pandemic features and trends still hold:

- **Rapid Consolidation:** Ownership is a moving target as companies jostle for regional hegemony and buy/sell/swap stakes in competitors.

- **Worker Exploitation:** The ambiguous legal status of couriers is integral to the on-demand business model. Along with related “sharing economy” sectors such as ride-hailing – also now firmly in the grasp of Big Tech²⁰ – food delivery has invited worker exploitation. Around the world, governments and courts have only recently begun to address the issue.
- **Slow to Deliver Profits:** Venture capital and technology investment has fueled the sector, but companies have yet to deliver profits – even in the sector-friendly circumstances of the global pandemic when delivery became more necessity than convenience. Tweaking the business model to move toward profitability – most prominently by adding grocery delivery – is underway. (User-data is its own reward, however, and gives companies unprecedented access to customers’ preferences and, literally, their tastes.)

On-demand, platform-based food delivery is part of urban e-commerce: it doesn’t exist in the absence of smartphone apps, Internet connectivity and population density. The original business model, a 21st century invention, looks similar in cities around the world: start-up companies created apps for ordering prepared food and partnered with restaurants that pay a commission to have their menus represented on the apps;²¹ customers then download the apps, order and pay for food and delivery using a credit card or a mobile payment app (e.g., Alipay, Apple Pay); couriers – whose (multiple) deliveries and routes are chosen by algorithms and guided by GPS for maximum efficiency – bring the orders from the restaurant to the customers within an agreed-upon timeframe.

Delivery platforms claim to be helping local businesses connect to customers, who benefit from the “affordable convenience” of eating-in (without meal prep), all while offering “meaningful work” to “underemployed” people drawn to the flexibility of the gig economy.²² Low overheads is integral to the business model with restaurant workers supplying the food and the delivery labour force – the “dashers,” “riders” or “partners” – considered independent contractors instead of employees (and therefore not eligible for social security, injury compensation or other benefits).

From the beginning, the model has been, explicitly, less about food service and more about logistics, e-commerce (including customer-data collection) and attracting technology-focused venture capital investors.²³ Competition in the new sector quickly heated up: some players were gobbled up, and those that remained raised even more investment cash – while buying and swapping stakes in competitors. The kings of e-retail, Amazon and Alibaba, both invested (see table).

Trends: chew on this

Delivering Revenue but No Profit: The business model’s most glaring flaw – though not its most egregious one – is that it isn’t financially profitable. So far, in most places in the world, the cost of doing business exceeds revenue (though the additional value of the trove of exploitable data on customer tastes and habits is great²⁴). A review of company annual reports makes the lack of profitability abundantly clear (see table above, “Last Link/Last Mile”, and accompanying endnotes, where seven of the 10 companies finished fiscal year 2020 clearly in the red by US\$ hundred-millions or even billions²⁵). Analysts note that the sector’s losses weren’t necessarily problematic, at least at first, because profitability wasn’t the goal: the companies were “just trying to get traction for their start-ups, all of which needed to attract customers quickly to establish a dominant market position, elbow out competitors and justify their soaring valuations.”²⁶ In practice, jostling for dominance meant offering deep discounts to customers – to get them on the apps and to keep them there – even when that necessitated a “cash burn.”²⁷ Persistent losses have led platforms to emphasize metrics other than revenue to demonstrate success and keep investors excited, such as their increasing numbers of deliveries or app downloads or growing “gross transaction values” (which basically means more folk splurging on the large pizza, ending up with bigger tabs).

There may be “a limit to how far you can push the economics of a platform to make it work”²⁸ – as some analysts posit with regard to food delivery – but companies haven’t reached it yet. In an attempt to move toward profitability, platforms have tweaked their algorithms – sometimes with disastrous results for couriers²⁹ – to try to get more deliveries out faster; they’ve created “cloud” or “ghost” kitchens, which are closed to diners but where meals from several restaurant menus can be prepared in one space for more efficient pick-up and delivery; and, in some cases, they’ve begun to raise fees – commissions for restaurants and delivery prices for diners. Across the board, they’ve expanded their delivery offerings to include groceries and other items (see table).

The Gig is Up? Will Courier Conditions Improve? What may ultimately put the brakes on food delivery is the sector’s inhumane and (possibly) untenable labour practices, though the promise of advanced automation may mute the calls for change. With little or no protections or perks, couriers put themselves in danger (by speeding, breaking traffic laws, travelling through high-crime areas) rather than risk being fined or fired if they don’t deliver often enough and fast enough.³⁰ While gig work is supposed to allow people to choose how much and when they work, the reality is that the platforms are in control. Zomato, for example, can disable the account of any courier who turns down three delivery jobs in one day.³¹ Couriers in China can be fined US\$300 (about a week’s wages) if a dissatisfied customer sends an email complaint to the platform.³² Couriers have begun protesting – sometimes in acts of desperation³³ – and self-organizing, in both the global North and South.³⁴

There are some indications that governments may be ready to enact labour reforms and put an end to the platforms’ free ride. In July 2021, China’s antitrust regulator issued a directive to delivery platforms to improve how they treat couriers, including by reducing the demand for fast deliveries.³⁵ In September, the country’s delivery giants – Meituan and ele.me (Alibaba) – promised to stop forcing couriers to register as self-employed business owners.³⁶ The European Commission is now considering ways to improve the working conditions of platform workers, generally, and food delivery workers specifically.³⁷ Just months after Spain announced it will require platforms to recognize delivery workers as employees – the first EU country to do so – Deliveroo announced it was ceasing operations there.³⁸ Deliveroo’s home country UK, on the other hand, seems to have settled the issue the other way: delivery workers are self-employed, UK courts have affirmed.³⁹ In the USA, New York City became the first to pass legislation to regulate the food delivery sector, establishing minimum pay and other worker protections.⁴⁰

Will food delivery survive this “crisis of technology crashing into reality”?⁴¹ It’s hard to root for its survival, especially considering some of the other problems the sector has created, including dasher-dodging on overcrowded city sidewalks,⁴² significant increases in trash from takeaway packaging,⁴³ and the deskilling of an overburdened labour force that is constantly controlled (directed and surveilled) by the platforms.⁴⁴ But as more and more people move to cities (beyond the more than 55% of world population that is already urbanized⁴⁵), income inequality will likely result in both increased demand for the convenience of food/grocery delivery and a desperate workforce willing to deliver food in order to eat. As others have noted, reeling in corporate greed in the food/grocery delivery sector will require both collective action and changes to employment laws.⁴⁶

Notes

- 1 Meituan press release, p. 2: <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0326/2021032600589.pdf>.
- 2 Sam Shead, "Amazon-backed Deliveroo reveals it lost \$309 million in 2020 ahead of IPO," CNBC, 08 March 2021: <https://www.cnbc.com/2021/03/08/deliveroo-reveals-it-lost-309-million-in-2020-ahead-of-london-ipo.html>.
- 3 Sam Shead, "Amazon-backed Deliveroo reveals it lost \$309 million in 2020 ahead of IPO," CNBC, 08 March 2021: <https://www.cnbc.com/2021/03/08/deliveroo-reveals-it-lost-309-million-in-2020-ahead-of-london-ipo.html>.
- 4 Hanna Ziady, "London needed a win. Instead it got its worst IPO in history," CNN Business, 02 April 2021: <https://www.cnn.com/2021/04/02/investing/london-deliveroo-ipo/index.html>.
- 5 Uber SEC filing, Form 10-K, 2020 annual report, "Delivery Revenue:" https://sec.report/Document/0001543151-21-000014/#idf-696d1c1f2d4ccb82230a3b241ab897_40. Regarding the acquisition of Postmates, which was completed 01 December 2020, Uber's Form 10-K states: "For the period from December 1, 2020 through December 31, 2020, Postmates contributed an immaterial amount of revenue and loss before taxes."
- 6 Jessica Bursztynsky, "Uber is buying the rest of grocery delivery start-up Cornershop," CNBC, 21 June 2021: <https://www.cnbc.com/2021/06/21/uber-acquiring-remaining-stake-in-grocery-delivery-start-up-cornershop.html>.
- 7 See Uber press release, 10 February 2021: <https://investor.uber.com/news-events/news/press-release-details/2021/Uber-Announces-Results-for-Fourth-Quarter-and-Full-Year-2020/default.aspx>.
- 8 Alibaba Group 2020 annual report, p. 137: <https://doc.irasia.com/listco/hk/alibabagroup/annual/2020/ar2020.pdf>. Alibaba did not report ele.me's revenue/loss separately.
- 9 DoorDash, Inc., Form 10-K, 2020, p. 71: <https://d18rn-op25nwr6d.cloudfront.net/CIK-0001792789/628c3275-56ed-4bc8-a246-20e7c40742ce.pdf>. Note: "...we have incurred net losses in each year since our founding, we anticipate increasing expenses in the future, and we may not be able to maintain or increase profitability in the future. We incurred a net loss of \$204 million, \$667 million, and \$461 million in the years ended December 31, 2018, 2019, and 2020, respectively, and, as of December 31, 2019, and 2020, we had an accumulated deficit of \$1.2 billion and \$1.6 billion, respectively. We expect our costs will increase over time and our losses to continue as we expect to invest significant additional funds towards growing our business and operating as a public company."
- 10 DoorDash, Inc., Form 10-K, 2020, p. 71: <https://d18rn-op25nwr6d.cloudfront.net/CIK-0001792789/628c3275-56ed-4bc8-a246-20e7c40742ce.pdf>.
- 11 Toby Sterling, "Just Eat Takeaway.com sees growth in 2021 even as pandemic eases," *Reuters*, 10 March 2021: <https://www.reuters.com/article/us-just-eat-takeaway-results/just-eat-takeaway-com-sees-growth-in-2021-even-as-pandemic-eases-idUSKBN2B20IU>.
- 12 Just Eat Takeaway.com annual report, 2020, p. 161. Reported loss for the period was €147 million before taxes.
- 13 Delivery Hero annual report, 2020, p. 58: <https://ir.deliveryhero.com/download/companies/delivery/Annual%20Reports/DE000A2E4K43-JA-2020-EQ-E-01.pdf>.
- 14 Delivery Hero annual report, 2020, p. 58. Delivery Hero reported a €894.2 million operating loss in FY ending 31 December 2020.
- 15 iFood is a Brazilian subsidiary of Movile, whose majority shareholder is Prosus. Prosus is a private company and does not report iFood's revenue separately. Just Eat Takeaway holds a 33% stake in the company. In its 2020 annual report (p. 213), Just Eat Takeaway reported on iFood's financial performance for the calendar year 2020 and reported revenue of €433 million: <https://s3.eu-central-1.amazonaws.com/takeaway-corporatewebsite-dev/just-eat-takeawaycom-annual-report-2020.pdf>.
- 16 Kritti Bhalla, "Swiggy reports nearly three-fold increase in annual revenue, in neck and neck race with Zomato," *Business Insider*, 13 August 2021: <https://www.businessinsider.in/business/ecommerce/news/swiggy-reports-nearly-three-fold-increase-in-annual-revenue-in-neck-and-neck-race-with-zomato/articleshow/85233393.cms>. Swiggy reported revenue of 2,776 crore, but reported loss of 3,768 (10,000,000 = 1 crore).
- 17 Kritti Bhalla, "Swiggy reports nearly three-fold increase in annual revenue, in neck and neck race with Zomato," *Business Insider*, 13 August 2021: <https://www.businessinsider.in/business/ecommerce/news/swiggy-reports-nearly-three-fold-increase-in-annual-revenue-in-neck-and-neck-race-with-zomato/articleshow/85233393.cms>. Swiggy reported revenue of 2,776 crore, but reported loss of 3,768 crore (10,000,000 = 1 crore).
- 18 Kritti Bhalla, "Swiggy reports nearly three-fold increase in annual revenue, in neck and neck race with Zomato," *Business Insider*, 13 August 2021: <https://www.businessinsider.in/business/ecommerce/news/swiggy-reports-nearly-three-fold-increase-in-annual-revenue-in-neck-and-neck-race-with-zomato/articleshow/85233393.cms>. Zomato reported revenue of 2,742 crore, but reported loss of 2,386 crore (10,000,000 = 1 crore).
- 19 Kritti Bhalla, "Swiggy reports nearly three-fold increase in annual revenue, in neck and neck race with Zomato," *Business Insider*, 13 August 2021: <https://www.businessinsider.in/business/ecommerce/news/swiggy-reports-nearly-three-fold-increase-in-annual-revenue-in-neck-and-neck-race-with-zomato/articleshow/85233393.cms>. Zomato reported revenue of 2,742 crore, but reported loss of 2,386 crore (10,000,000 = 1 crore).
- 20 Evgeny Morozov, "From Airbnb to city bikes, the 'sharing economy' has been seized by big money," *The Guardian*, 27 November 2018: <https://www.theguardian.com/commentisfree/2018/nov/27/airbnb-city-bikes-sharing-economy-big-money>.
- 21 Some apps, such as Grubhub (now owned by Just Eat Takeaway.com), started out as menu aggregators and ordering platforms – with restaurants paying a fee to have their menu on the app – and later grew into full-fledged delivery companies.
- 22 DoorDash founders explained their mission and vision for the company in 2013: Andy, Stanley, Evan, Tony, "The DoorDash Story," *Medium*, 04 October 2013: <https://medium.com/@DoorDash/the-doordash-story-b370c2bb1e5f>. See also, Cory Schöder, "How DoorDash Became the Most Successful Food Delivery Service in the US," 21 May 2021: <https://latana.com/post/door-dash-success-story/>.
- 23 Andy, Stanley, Evan, Tony, "The DoorDash Story," *Medium*, 04 October 2013: <https://medium.com/@DoorDash/the-doordash-story-b370c2bb1e5f>.
- 24 An article on the website of Invisibly, an organization promoting the monetization of personal data by individuals,

- provides a quantitative analysis showing how companies value personal data. See, Invisibly, “How Much is Your Data Worth? The Complete Breakdown for 2021,” 13 July 2021: <https://www.invisibly.com/learn-blog?category-valueOf-Data#filter> .
- 25 Of the three companies that may be turning a profit in food delivery, iFood is private and does not make public its profits/losses; Meituan, the world’s largest food delivery company, appears to have become profitable for the first time at the end of 2019, according to Ryan McMorrow, Meituan Di-anping shows route to food delivery profits,” *Financial Times*, 15 December 2019; Alibaba does not report ele.me’s profits/losses separately.
 - 26 Kevin Roose, “Farewell, Millennial Lifestyle Subsidy,” *New York Times*, 08 June 2021: <https://www.nytimes.com/2021/06/08/technology/farewell-millennial-lifestyle-subsidy.html> .
 - 27 Suneera Tandon, “Amazon’s expansion in food delivery service to up competition, cash burn: Report,” *Mint*, 10 March 2021: <https://www.livemint.com/news/india/amazons-expansion-in-food-delivery-service-to-up-competition-cash-burn-report-11615354155908.html> .
 - 28 Analyst Dan Thomas quoted in Natasha Bernal, “Amazon took a chunk of Deliveroo. Then things got interesting,” *Wired (UK)*, 11 February 2021: <https://www.wired.co.uk/article/deliveroo-pandemic-amazon> .
 - 29 Zomato, for example, tweaked its algorithm without warning its deliverers, who were sent far afield from their usual delivery zones, resulting in lower wages and, in some cases, exposure to crime. See Nilesh Christopher, “A tiny tweak to Zomato’s algorithm led to lost delivery riders, stolen bikes and missed wages,” *Rest of world*, 07 October 2021: <https://restofworld.org/2021/how-a-small-change-to-zomatos-algorithm-created-havoc-for-delivery-riders/> .
 - 30 Jiayun Feng, “Food delivery giants Ele.me and Meituan promise to stop treating delivery workers like disposable garbage. Sort of.,” *SupChina*, 22 September 2021: <https://supchina.com/2021/09/22/ele-me-and-meituan-fine-well-stop-treating-delivery-workers-like-disposable-garbage-sort-of/> .
 - 31 Nilesh Christopher, “A tiny tweak to Zomato’s algorithm led to lost delivery riders, stolen bikes and missed wages,” *Rest of world*, 07 October 2021: <https://restofworld.org/2021/how-a-small-change-to-zomatos-algorithm-created-havoc-for-delivery-riders/> .
 - 32 Emily Feng, “For China’s Overburdened Delivery Workers, The Customer — And App — Is Always Right,” *NPR*, 01 December 2020: <https://www.npr.org/2020/12/01/938876826/for-chinas-overburdened-delivery-workers-the-customer-and-app-is-always-right> .
 - 33 In January 2021, a courier working for both Meituan and ele.me in China set himself on fire to protest not being paid his rightful wages. See Yaun Yang and Ryan McMorrow, “Chinese courier sets fire to himself in protest over unpaid Alibaba wages,” *Financial Times*, 12 January 2021: <https://www.ft.com/content/d6189ee8-9aea-41dd-a412-b8dab9cacf2> .
 - 34 Satyavrat Krishnakumar and Amay Korjan, “Worker-Led Alternatives: A Line of Hope for New Platform Futures,” *Bot Populi*, 27 October 2021: <https://botpopuli.net/worker-led-alternatives-a-line-of-hope-for-new-platform-futures/> .
 - 35 Jiayun Feng, “Food delivery giants Ele.me and Meituan promise to stop treating delivery workers like disposable garbage. Sort of.,” *SupChina*, 22 September 2021: <https://supchina.com/2021/09/22/ele-me-and-meituan-fine-well-stop-treating-delivery-workers-like-disposable-garbage-sort-of/> .
 - 36 Jiayun Feng, “Food delivery giants Ele.me and Meituan promise to stop treating delivery workers like disposable garbage. Sort of.,” *SupChina*, 22 September 2021: <https://supchina.com/2021/09/22/ele-me-and-meituan-fine-well-stop-treating-delivery-workers-like-disposable-garbage-sort-of/> .
 - 37 See European Commission press release, “Protecting people working through platforms: Commission launches second-stage consultation of social partners,” 15 June 2021: https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2944 .
 - 38 Deliveroo did not cite the impending legislation as the reason for its decision. Jasper Jolly, “Deliveroo unveils plans to pull out of Spain in wake of ‘rider law,’” *The Guardian*, 30 July 2021: <https://www.theguardian.com/business/2021/jul/30/deliveroo-unveils-plans-to-pull-out-of-spain-in-wake-of-rider-law> .
 - 39 Paul Sandle, “UK Court of Appeal confirms Deliveroo riders are self employed,” *Reuters*, 24 June 2021: <https://www.reuters.com/world/uk/uk-court-appeal-confirms-deliveroo-riders-are-self-employed-2021-06-24/> .
 - 40 Samantha Subin, “New York City passes bills offering protections to food delivery workers,” *CNBC*, 23 September 2021: <https://www.cnn.com/2021/09/23/new-york-city-passes-protections-for-food-delivery-workers.html> .
 - 41 Mark A. Cohen quoted in Winnie Hu and Chelsia Rose Marcus, “15-Minute Grocery Delivery Has Come to N.Y.C. Not Everyone Is Happy.,” *New York Times*, 09 November 2021: <https://www.nytimes.com/2021/11/09/nyregion/online-grocery-delivery-nyc.html> .
 - 42 Mark A. Cohen quoted in Winnie Hu and Chelsia Rose Marcus, “15-Minute Grocery Delivery Has Come to N.Y.C. Not Everyone Is Happy.,” *New York Times*, 09 November 2021: <https://www.nytimes.com/2021/11/09/nyregion/online-grocery-delivery-nyc.html> .
 - 43 For example, Liz Farquhar, “Working from Home and Food Delivery Boom Fuel Newcastle Garbage Glut,” *ABC Regional News*, 12 March 2021: <https://www.abc.net.au/news/2021-03-12/food-delivery-boom-fuelling-newcastles-rubbish-spike/13241842> .
 - 44 Satyavrat Krishnakumar and Amay Korjan, “Worker-Led Alternatives: A Line of Hope for New Platform Futures,” *Bot Populi*, 27 October 2021: <https://botpopuli.net/worker-led-alternatives-a-line-of-hope-for-new-platform-futures/> .
 - 45 World Health Organization fact sheet, “Urban Health,” 29 October 2021: <https://www.who.int/news-room/fact-sheets/detail/urban-health> .
 - 46 Satyavrat Krishnakumar and Amay Korjan, “Worker-Led Alternatives: A Line of Hope for New Platform Futures,” *Bot Populi*, 27 October 2021: <https://botpopuli.net/worker-led-alternatives-a-line-of-hope-for-new-platform-futures/> .