

Acknowledgements

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Executive Summary

Platform-led upskilling is the training that marketplace platforms provide to small-scale vendors and self-employed workers, even outside the scope of a conventional employer-employee relationship. It is a widespread and necessary part of doing business, especially in regions with significant skills gaps.

Upskilling happens in three ways—via face-to-face or interpersonal interactions, online training, and in-workflow training moments—and the content includes various combinations of platform proficiencies (how to use the service), financial and digital literacies, vocation-specific skills, and soft skills.

The most important part of platform-led upskilling in Africa is what we call *transformational upskilling*. Platform-Led *Transformational* Upskilling results in portable skills and adds to the overall level of skill in a workforce. When delivered by platforms, transformational upskilling has the potential to strengthen the social contract between platforms and vendors/workers, and it brings platforms into the broader education landscape of the markets in which they operate. Indeed, transformational upskilling is the kernel of a potentially powerful alignment between the respective strengths and goals of marketplace platforms, their users (laborers, suppliers, and customers), and the development community's interest in promoting prosperity and skilled workforces.

Platform-Led Transformational Upskilling is difficult and expensive; there's a lot of work to be done to refine it as a craft and create sources of advantage for marketplace platforms. But our research and interviews with platforms around the world illustrate that platforms are already teaching portable skills. At present, the scale at which Platform-Led Transformational Upskilling could impact the contours of labor markets is undetermined but likely large.

Mobilizing platform-led upskilling will involve platforms, governments, and the development sector in new knowledge exchanges and partnerships to create better livelihoods in the digital era. As such, we have six calls to action:

- 1 Platforms can improve their own upskilling activities immediately;
- 2 Platforms can frame the upskilling that they are doing in language that will resonate with partners in the economic development sector;
- 3 Together, platforms and the development community can form new upskilling partnerships;
- 4 Together, they can build an evidence base about transformational upskilling;
- 5 Together, they can nurture a broader community of practice;
- 6 And, together, they can build a supportive ecosystem to further advance the impact of upskilling on individual workers and workforces as a whole.

Foreword

Technology is not simply digitizing the activities that make financial services possible in Africa. It is reshaping how and when people use financial services and, increasingly, how they earn incomes in the first place. The Mastercard Foundation's Partnership for Finance in a Digital Africa (FiDA) draws insights from a large, diverse portfolio of fintech partners to focus on defining trends, such as how digital marketplaces ("platforms") facilitate financial services to digitizing workers and small businesses. Increasingly, platforms combine access to markets, finance, and skills development for consumers, workers, and small businesses. These enablers are critical to the Foundation's strategy going forward, and this paper highlights an important new approach to skills development through platforms.

The Foundation's new Young Africa Works strategy aims to secure dignified, fulfilling work opportunities for 30 million young people by 2030 by which point an estimated 375 million young people will enter the labor force. This demographic boom will make Africa's workforce the largest in the world, but at the current rate there will not be enough new work opportunities to enable a pathway out of poverty. Small businesses need better access to digital finance to hire more of Africa's young people, but they also need employees with certain skills. The Foundation is working with a range of organizations, including financial service providers and technology companies, to address these challenges.

While technology has demonstrated the ability to scale access to finance in Africa, how it will equip and create work opportunities at scale for young people remains to be seen. Today, over 270 platforms in Africa connect young people to work opportunities in their local markets, and employers in developed markets are now hiring "gig workers" for focused, time-bound assignments beyond their borders. This global reach could be great news for young, tech-savvy African youth, allowing them

build a good work histories and better compete for work both abroad and at home.

In discussions with digitizing small businesses and workers in Africa, the FiDA team heard from young Africans preparing to capitalize on this shift. The FiDA team saw a real opportunity for the platforms that link youth to gig work to deliver relevant training that expands and strengthens their skillsets and increases their ability to successfully compete for and complete gigs via the platform. Transformational upskilling, as defined in this paper, outlines the approaches platforms already deploy in Africa and elsewhere. This is not merely training offered digitally; transformational upskilling offers training alongside other tools, such as finance, often in real time when it is most needed. Moreover, many of the skills imparted by transformational upskilling are portable: these skills can be leveraged to find work on other platforms or even offline.

The ability to constantly learn, continuously grow, and always improve is important to the millions of youth in Africa who want to fulfill their potential. With platforms positioned to offer the finance and market access required to realize that potential, transformational upskilling, especially when it leads to portable skills, will become a critical ingredient for success. Through programs like FiDA the Foundation seeks to push the boundaries of thinking and innovation to come up with solutions that not only help African youth land their next work opportunity but, more importantly, build careers they consider meaningful and dignified.

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Robert and Jumia's Seller Center



We spoke to Robert, and other entrepreneurs and self-employed people in Kenya, as part of our 2018 research on the platformization of African economies. We were struck by how many entrepreneurs in Kenya described learning new skills via the same platforms they depend on for their livelihoods. Even though the entrepreneurs were not employees of the platforms, the relationships they described were deeper and more multifaceted than anonymous sales. As Jumia Kenya's Head of Vendor Relationship Management explains, the "Jumia University" provides complex and multilevel training:

A big part of the training is demystifying what e-commerce is. There are lots of assumptions that it is easy to transition an offline business into the online world. Training is aimed at clarification and building understanding.

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- Valentine Wambui, Head of Vendor Relationship Management, Jumia Kenya

Like hundreds of platforms around the world, Jumia is investing in what we call platform-led upskilling. This report—informed by 15 in-depth primary interviews as well as secondary materials²—surveys the landscape of platform-led upskilling, with an emphasis on its use in sub-Saharan Africa. Our three goals are to (1) describe the contours of platform-led upskilling on the continent, (2) reflect on its potentially transformational role in emerging digital economies, and (3) identify new possibilities for collaboration between platforms and the development community.

¹ Partnership for Finance in a Digital Africa, "Micro-Entrepreneurs in a Platform Era," https://mse.financedigitalafrica.org/; Partnership for Finance in a Digital Africa, "Robert: Sells Mobile Phone Accessories Online"; watch the video of our interview with Robert on YouTube at https://youtu.be/Z_pFronb2Y4.

² This article and our other research outputs (online) are based on in-depth interviews with 13 diverse marketplace platforms from around the world and two third-party training entities, augmented by extensive desk research. In our discussions with the platforms, we used a semi-structured approach to guide discussants through a conversation about what platforms do vis-à-vis training, why they do it, and how they measure it.

Platforms, skills, and livelihoods in the digital age

A great global force—digitization—is rapidly changing livelihoods around the world. The transitions are massive, shifting the dynamics of value creation and the nature of employer-employee relationships under the banners of the future³ or changing nature⁴ of work.

This is also a moment in which another great global force—demographics—is making the livelihoods challenge particularly acute in emerging economies in certain areas, such as Africa, where tens of millions of young people seek to join the workforce every year, often without the skills required to prosper.

Platform-led upskilling links digitization and demographics in an exciting and high-potential way. Accordingly, we look at how one element of digitization, the platformization of markets, might address one element of the livelihoods challenge: the need for skills.⁵

Marketplace platforms

In almost every economic sector multi-sided *marketplace platforms*⁶ match buyers and sellers of goods, assets, services, and labor at massive scales.⁷

The platformization of markets is not complete (for every Amazon, there is a still a corner store, for every Airbnb, an independent guest house). But the scope and pace of the insertion of platforms into economies has been remarkable, and emerging markets have not been left behind. Global players increasingly look to the markets of the Global South as drivers of future growth, and local improvisation has resulted in hundreds of regional players experimenting in almost every conceivable market niche. A recent study by Insight2Impact found more than 300 transaction platforms operating in eight major markets in sub-Saharan Africa alone, and 80% of these were founded in Africa.⁸ Many of these platforms may be acquired, merge, or simply fail, but others will succeed and join the ranks of the high-valuation homegrown unicorns emerging in every global region: Alibaba in China, Flipkart in India, GoJek in Southeast Asia, MercadoLibre in Latin America.

³ International Labour Organization, "Work for a Brighter Future—Global Commission on the Future of Work," http://bit.ly/ilobrightfut; Fuller et al., "Your Workforce Is More Adaptable Than You Think," https://hbr.org/2019/05/your-workforce-is-more-adaptable-than-you-think.

⁴ World Bank, World Development Report 2019: The Changing Nature of Work, https://www.worldbank.org/en/publication/wdr2019; Choi, Dutz, and Usman, The Future of Work in Africa, http://dx.doi.org/10.1596/978-1-4648-1445-7.

⁵ Throughout this paper we use the word "livelihood" instead of "job", and "worker" instead of "employee" as much as possible. Doing so allows us to talk about labor and work outside the exclusive constructs of the traditional employer-employee relationship.

⁶ Platforms loom large in many discussions of digitization, so it is worth noting two important types of platforms that we're not addressing here:

(1) Innovation platforms like Android, Windows, and iOS enable independent programmers to contribute code to broader systems, usually in a way that allows the platform operator to earn money as the software ecosystem grows. (2) Attention platforms use data to sell targeted advertisements placed amid social media content (like Facebook, Youtube, and Twitter), or on search pages (Google Search). These kinds of platforms have spawned vibrant debates about their influence on innovation and on civil society and democracy respectively. However, they are not the focus of this analysis. For further discussion see Gawer and Cusumano, "Industry Platforms and Ecosystem Innovation" https://doi.org/10.1111/jpim.12105 and van Dijck, Poell, and de Waal, "The Platform Society" https://dx.doi.org/10.1093/oso/9780190889760.001.0001.

⁷ Parker, Van Alstyne, and Choudary, Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You, https://www.platformstrategypartners.com/; Evans et al., "Platform Economics: Essays on Multi-Sided Businesses," https://papers.ssrn.com/ sol3/Delivery.cfm?abstractid=1974020.

⁸ Makuvaza, Johnson, and Smit, "The Rise of African Digital Platforms," https://i2ifacility.org/insights/blog/the-rise-of-african-digital-platforms?entity=blog.

This reorganization of sectors and markets, with platforms in the middle, has significant implications for the health and vitality of both small firms and individuals in the labor market.

Firstly, marketplace platforms facilitate commerce by allowing small firms and suppliers to exchange goods and services. The platforms do this without having to run warehouses, acquire inventory, or even ship products, but broad questions remain: What's left for the producers? If platforms face the customers and do the matching, how can small firms and suppliers prosper as their roles in value chains evolve?

Secondly, marketplace platforms create new avenues for the self-employed via what is often called the "gig economy." In terms of labor, the central question is this: Is a platform worker an employee? Dome labor marketplace platforms connect individuals digitally to work around the world. Others connect people to local employment and service-delivery opportunities. Flexibility has increased, and moonlighting in second gigs has become common. Vouth, in particular, are mixing and matching activities to create livelihoods, combining self-employment with salary jobs and entrepreneurialism. But hard-won worker protections and job stability may be in retreat. With this in mind, how can gig workers and the self-employed thrive in the platform era?

Against the backdrop of these major transitions Caribou Digital, in partnership with the Mastercard Foundation, has embarked on this project to understand and ultimately improve the relationships that platforms build with small-scale vendors and workers. In this report, platforms will find illustrations to inform their efforts to achieve higher productivity and greater market success while the development community will learn about how to partner with different platforms to bring about more inclusive, prosperous societies. A more mutually beneficial relationship between platform and supplier is critical to both these efforts.

Employment gaps in Africa

While platformization will transform markets and livelihoods everywhere, this is perhaps nowhere more true than in Africa, where there is an urgent need ¹⁴—and a unique opportunity—to provide new forms of livelihoods to a young, growing population eager for meaningful and dignified work. ¹⁵

⁹ Genesis Analytics, LTD, "Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy," http://bit.ly/kenyagigecon.

¹⁰ Todolí-Signes, "The 'gig Economy': Employee, Self-Employed or the Need for a Special Employment Regulation?" https://journals.sagepub.com/doi/abs/10.1177/1024258917701381; Conger and Scheiber, "California Bill Makes App-Based Companies Treat Workers as Employees," https://www.nytimes.com/2019/09/11/technology/california-gig-economy-bill.html.

¹¹ Partnership for Finance in a Digital Africa, "The Digital Side-Hustle," https://mse.financedigitalafrica.org/2019/01/the-digital-side-hustle/

¹² Barford and Coombe, "Getting by: Young People's Working Lives," https://www.repository.cam.ac.uk/handle/1810/292310.

¹³ Graham et al., "The Risks and Rewards of Online Gig Work At the Global Margins," https://www.oii.ox.ac.uk/publications/gigwork.pdf

¹⁴ Africa Growth Initiative, "Foresight Africa: Top Priorities for the Continent in 2019," https://www.brookings.edu/wp-content/uploads/2019/01/BLS18234_BRO_book_007_WEB.pdf; World Economic Forum, "The Future of Jobs and Skills in Africa," http://www3.weforum.org/docs/WEF_EGW_FO_J Africa.pdf.

¹⁵ Mastercard Foundation, "Young Africa Works Strategy 2018-2030," https://mastercardfdn.org/research/young-africa-works/

The challenge is immense: 15 to 20 million young people will enter the African workforce each year over the next thirty years, joining millions more under- and unemployed people in the search for better livelihoods.¹⁶

The bulk of those better livelihoods will remain outside the IT sector¹⁷—not every job is in telecoms or computing. However, a growing proportion of livelihoods will require ICT skills or, at least, be mediated by technology. As platforms enter markets, they match buyers and sellers of services, agriculture, manufacturing, transport, and so on.

Thus, even if marketplace platforms are not *employers* and their suppliers and independent workers are not *employees*, they will play an increasingly prominent role in the livelihoods of millions of young Africans. ¹⁸ Indeed, Bankable Frontier Associates suggests there may be between 30 and 80 million potential "iWorkers" in sub-Saharan Africa¹⁹ while Genesis Analytics estimates that the online gig marketplace is growing at over 27% annually. ²⁰

And the need for skills

But how can more individuals make this jump to become digital workers? How will small enterprises, like Robert's platform-based phone accessory business, adapt to successfully sell their products via competitive digital marketplaces? This is where the skills gap is most stark.

The challenge of addressing the skills gap in sub-Saharan Africa has parallels and analogues in other regions—from the World Economic Forum's ASEAN initiative to train 20 million MSE workers²¹ to McKinsey's projection that digitization could create 65 million jobs in India by 2025 if accompanied by "new skills and labour redeployment"²²—there is a global imperative to ensure that everyone has the skills, and opportunities, to pursue livelihoods in the digital era.

This brings us back to an essential challenge that Jumia and other marketplace platforms face in Africa and beyond: platforms depend on a large user base of sellers equipped with the skills to fulfill high volumes of transactions. If sellers' skills are lacking, their platform-based business will fail, hurting platforms themselves. So, increasingly, the onus is on the platform to step in and deliver skills.

¹⁶ World Economic Forum, "The Future of Jobs and Skills in Africa," http://www3.weforum.org/docs/WEF_EGW_FOJ_Africa.pdf.

¹⁷ Bukht and Heeks, "Defining, Conceptualising and Measuring the Digital Economy," https://diodeweb.files.wordpress.com/2017/08/diwkppr68-diode.pdf; World Bank, "Digital Jobs for Youth: Young Women in the Digital Economy," http://bit.ly/digitaljobsyouth.

¹⁸ Dupoux et al., "How Online Marketplaces Can Power Employment in Africa," https://on.bcg.com/2k8d1fa.

¹⁹ BFA, "Digital Commerce and Youth Employment in Africa," https://mastercardfdn.org/wp-content/uploads/2019/03/BFA_Digital-Commerce-White-Paper_FINAL_Feb-2019-aoda.pdf.

²⁰ Genesis Analytics, LTD, "Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy," http://bit.ly/kenyagigecon.

²¹ CIO Asia Staff, "Microsoft, Google Join Pledge to Develop Digital Skills for ASEAN," http://bit.ly/cioasia.

²² McKinsey Global Institute, "Digital India: Technology to Transform a Connected Nation," https://mck.co/2GFUGOt.

There is nothing new in suggesting that individuals need skills to find good livelihoods, nor in the idea that companies that need skilled workers should be willing to invest in upskilling.²³ But when marketplace platforms step in, outside the construct of the employer-employee relationship, it (a) changes the equation and (b) creates new opportunities for platforms to engage with their markets.

Our research reveals the remarkable extent to which marketplace platforms—often conceptualized as arm's-length algorithmic aggregators and connectors of supply and demand—are finding it both necessary and financially beneficial to be directly involved with the upskilling of their participants. In frontier markets, global platforms as well as dozens of regional ones are discovering and innovating on the best ways to help their participants become more adept digital producers.

Through platform-led upskilling, platforms benefit by accelerating sales and increasing the volume, scope, and quality of goods and services on offer while producers benefit by learning new skills, improving their craft, and selling more.

Upskilling draws on several domains

Below we explore how marketplace platforms in Africa are investing in a variety of upskilling initiatives in order to catalyze new conversations and partnerships between platforms and the development sector. However, the concept of platform-led upskilling developed from a broader conversation and set of traditions, such as employer-led training, ²⁴ with its rationale for return on investment and competitive advantage. Such training matters, and pays returns, even in an era without lifetime employment. ²⁵ The training investments made by the platforms we spoke to show that a similar dynamic is emerging, even outside the exclusivity and longevity of the employer-employee relationship.

Another view might see platform-led upskilling as an important new approach to what the development community calls business development services (BDS)—a long tradition of providing training to the self-employed and small enterprises around the world.²⁶ Some of those same policymakers and development practitioners might view platform-led upskilling through the theoretical lens of economic discussions about the contribution of "human capital" to development.²⁷

^{23 &}quot;UpSkill America—The Aspen Institute," https://www.aspeninstitute.org/programs/upskill-america/.

 $^{24\ \} Probst\ and\ Scharff, "A\ Strategist's\ Guide\ to\ Upskilling,"\ https://www.strategy-business.com/feature/A-strategists-guide-to-upskilling?gko=0bb8b.$

²⁵ Hoffman, Casnocha, and Yeh, The Alliance: Managing Talent in the Networked Age, http://www.theallianceframework.com/.

²⁶ Levitsky, Business Development Services, https://doi.org/10.3362/9781780442808.

²⁷ Becker, Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, https://play.google.com/store/books/details?id=9t69ilCmrZ0C.

And, even more broadly, platform-led upskilling represents a new dimension in *e-learning*. This is a massive space, ²⁸ ranging from classrooms that teach digital literacy and massive open online courses (MOOCS) to electronic courseware²⁹ and specialized approaches to m-learning. ³⁰ While the pedagogies are continually evolving, platforms will, conceivably, train as many people as any university courseware or dedicated mobile learning site.

Researchers are investigating how these sometimes disparate conversations are coevolving in the platform era: For example, CrowdLearn at the Oxford Internet Institute is an ongoing project looking at how European gig workers on four major platforms learn the skills to pursue their livelihoods. Similarly, Ryan Craig, at University Ventures, describes the "win-win" of last mile training—upskilling offered by platforms to attract new talent. And the researchers Noopur Raval and Joyojeet Pal explore the contours of training offered by a beauty and wellness platform in India, finding patterns of "care" and investment in "professionalism" that transcend characterization as simple arms-length transactional support. Finally, an extensive report for MercyCorps by Genesis Analytics identifies transferable skills, "such as good communication skills, financial management, business and entrepreneurship skills," as an essential "building block" of Kenya's emerging gig economy.

²⁸ Hagerman, "Digital Literacies Learning in Contexts of Development: A Critical Review of Six IDRC-Funded Interventions 2016–2018," https://doi.org/10.17645/mac.v7i2.1959.

²⁹ Fischer, "Online Classrooms Look to Improve Higher Education Across Africa, but Face Skepticism," https://nyti.ms/2kym2hx

³⁰ UNESCO, "Best Practices in Mobile Learning," https://en.unesco.org/themes/ict-education/mobile-learning/fazheng/case-studies

^{31 &}quot;Skills Formation and Skills Matching in Online Platform Work: Practices and Policies for Promoting Crowdworkers' Continuous Learning (CrowdLearn)," https://www.oii.ox.ac.uk/research/projects/crowdlearn/; Larke et al., "Skills Formation and Skills Matching in Online Platform Work," http://bit.ly/2kyksw7.

³² Craig, "Last-Mile Training and the Future of Work in an Expanding Gig Economy," https://tcrn.ch/2klU6h7.

³³ Raval and Pal, "Making a 'Pro': 'professionalism' after Platforms in Beauty-Work," https://doi.org/10.1145/3359277

³⁴ Genesis Analytics, LTD, "Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy," http://bit.ly/kenyagigecon.

Approaches

We weave references to several examples of the upskilling happening by (and on) marketplace platforms around the world throughout the rest of this report.

Platform-led upskilling involves three approaches through which training can occur. Each of these approaches—interpersonal, online training, and in-workflow training moments—draws on distinct traditions and relies on different experts working to improve them. Not all platforms use all three approaches, and, when they do, different teams may steer different approaches.

Interpersonal training

In our interviews we were struck by how many platforms relied on face-to-face, or other forms of contact with live human trainers, to impart skills to their platform participants. Indeed, we found far more examples of interpersonal training than online training among our platform interviewees, and platforms attached a great deal of importance to this type of training.

Interpersonal training requires significant investment

Lynk, a technology platform that connects Kenyan tradespeople (Lynk's "Pros") to businesses and households, found that the workmanship provided by artisans on their site often did not meet customers' expectations for quality. Investigating further, they realized that Pros often used outdated techniques and struggled to access tools and quality raw materials. To address this they set up Fundi Works, an end-to-end training and production workshop where carpenters can apprentice with master carpenters to improve their techniques and learn how to procure and store raw materials to ensure high-quality finished products. Once carpenters have completed this apprenticeship they are better equipped to sell high-quality services on Lynk and elsewhere.



Source: Gokada

Gokada, an on-demand motorcycle-hailing platform in Nigeria, partnered with the largest defensive driving academy in the world, based in Indonesia, to help them scale their face-to-face driver training. With regular okadas (motorcycle taxis) known for their recklessness, ³⁵ safe driving practices have become a key differentiator of the motorcycle taxi app industry

in Nigeria and thus a key focus of Gokada's platform-led, offline training. The partnership has allowed Gokada to reduce in-classroom and in-the-field training from seven days to three, and, in turn, work towards their ambitious growth targets. Ayodeji Adewunmi, co-CEO of Gokada told us, "Today we have 1,000 drivers and are looking by the end of year to have 5,000 and in 24 months to have 50,000 trained drivers."



While Jumia Kenya provides a range of online training modules, the platform has found hightouch approaches to be the most effective for upskilling. They encourage vendors (like Robert, whose profile opened our paper) to attend classroom onboarding sessions, rather than online alternatives, by offering incentives for attendance, such as discounts on the Jumia store. But providing vendors with enough quality, faceto-face training is a challenge. To increase the reach of their in-person training, Jumia Kenya recently moved their vendor training facility to a larger unit in Nairobi's Central Business District, enabling them to run five trainings per day rather than one. While training is key to providing "sustainable income for merchants" and thereby increasing Jumia's sales, Sam Chappatte, CEO of Jumia Kenya, noted the significant costs of offline training in terms of renting training facilities and training the trainers.

Sendy, a logistics platform linking couriers and transporters with customers in various African markets, attaches importance to interpersonal training beyond the unidirectional transfer of skills. The company has made it mandatory for all corporate-level staff to take part in driver training so that *drivers* can train *staff* on the efficacy of the platform, provide detailed product feedback, and share their experiences as users. Marvin Kirschner, VP Growth & Data, told us that this "motivates staff to create solutions that impact livelihoods, not just sales."

Face-to-face training seems to be so crucial that platforms continue to need it beyond the growth stage. Even when there is widespread knowledge of the company and a critical mass of sellers are using the site, platforms still find that they need to invest in interpersonal training. Accordingly, both Alibaba's Taobao and Amazon work with third parties to upskill sellers through face-to-face training.

Even when it's not all face-to-face

Platforms can use interpersonal contact even beyond face-to-face training. For instance, Flipkart, one of India's leading e-commerce platforms, provides a tailored 60-day business incubation program for new sellers once they have been onboarded and listed their first item. The program teaches sellers how to manage an e-commerce business end-to-end so that they are self-sufficient by the end of the incubation period. As part of the program, Flipkart's Key



Flipkart Seller Hub Photo credit: @flipkartsellerhub Facebook page

Account Managers call sellers every two to three days to discuss everything from how to fulfill the first order and identify opportunity areas within the seller's merchandise catalog, to how to read a profit and loss statement. These personalized telephone calls compliment the online training content that sellers receive automatically via email every time a new milestone is reached, such as when they receive their first order or first payout.

Similarly, Jumia Kenya leverages its Facebook page to push different training topics to vendors, enabling them to ask questions and interact with the content through a live Q&A. These topics are reinforced through various other channels of communication with vendors, such as Jumia's Seller Center and vendor emails.

But interpersonal training works because it's personalized and flexible

Ahwenepa, a Ghanaian e-commerce marketplace platform specializing in the sale of African-inspired products, has taken a unique approach to face-to-face training. In addition to classroom training sessions run for onboarded artisans, they've partnered with fashion schools to run e-commerce upskilling classes that help students prepare themselves, and their products, for the world of digital commerce.

DigiFarm, a digital platform for Kenyan farmers run by Safaricom, gives farmers access to products and services that help them source, transact, learn, and increase their outputs. While an integrated, automated SMS learning service is bundled into the core product offering, DigiFarm also provides offline support to guide and educate farmers.

A year after its 2018 launch, DigiFarm rolled out the DigiFarm Village Advisory Network (DVA), made up of over 1,500 field experts, to support farmers' digital journeys. The physical support network was introduced based on feedback from farmers who wanted to ask their questions in person. This hybrid model of online and offline training has been a success, despite the notable costs of managing a face-to-face support network like the DVA.

The farmers in DigiFarm's network aren't the only ones who appreciate a human point of contact with their platform. Platforms like Sendy say that, particularly in sub-Saharan Africa, face-to-face and interpersonal connections are crucial to establishing trust with drivers so that training messages are taken seriously. However, Flipkart has found that

those most likely to take half a day away from their businesses to attend a training are its biggest, most sophisticated suppliers, whereas smaller or less active suppliers might not invest this time in training.

Yet Flipkart also recognizes that the next wave of producers on its platform is likely to be smaller and might not be as comfortable with English as the primary means for instruction. Accordingly, webinars, delivered in a variety of languages, are important.

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As e-commerce is progressing, people who are well-versed in English and can figure out complicated stuff by trial-and-error are already online. Now the next wave of growth in the seller community is going to be the people for whom English is not the first language and it would be difficult for them to learn new concepts in English.

- Nishant Gupta, Head, Flipkart Marketplace

In a world that seems increasingly digital, and among marketplace platforms with business models built on supposedly lightweight interactions between buyers and sellers, many platforms in emerging markets are investing heavily in face-to-face training with a variety of user segments to address the skills gap and make their businesses work. In other words, many platforms have identified an ongoing need for a mix of tech and touch.³⁶

Online training

Online training and support can take the form of FAQs, training videos, or even Interactive Voice Response (IVR) helplines. Training content is then encoded or captured online for reuse.

Online training can be a large part of a platform's overall online presence. For example, eBay has its "Seller Center", Google has "Grow", Amazon has its "Seller University", and at Upwork they just call it "help". In each case, platforms don't simply tell an individual supplier or worker how to use the site; rather, they extend into broader topics, like how to create and register a small business, keep the books, do customer service, and so on. For example, the Experiences Supplier Resource Center of TripAdvisor's experiences platform promises:



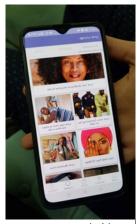
Industry-leading tips from the world's largest online tours and activities provider. From the latest trends and traveler insights to product management, listing advice, marketing best practices, and more—we'll help you attract more customers, boost your sales, and take your business to new heights, whether you're an individual tour operator just starting out or an established travel business or attraction.³⁸

³⁶ Partnership for Finance in a Digital Africa, "Tech and Touch," https://mse.financedigitalafrica.org/2019/01/tech-and-touch/.

³⁷ eBay, "Seller Center," https://pages.ebay.com/seller-center/index.html; Google, "Grow," https://www.grow.google/; Amazon "Seller University," https://services.amazon.com/tutorials-and-training.htm; Upwork, "help," https://support.upwork.com/hc/en-us.

³⁸ TripAdvisor, "TripAdvisor Experiences Resource Center," https://www.tripadvisor.com/ExperiencesInsights/

While the above examples from global players represent one end of the spectrum, we found less content among many of the smaller, Africabased platforms we interviewed. Even among those that, like Jumia, have invested in developing online content, online training may be secondary in importance and perceived effectiveness to interpersonal upskilling.



Lynk Lounge Source: Lynk

Platforms are using video to engage workers in training

Flipkart has found that its sellers are more likely to watch videos than read online content. Fortunately, video is an increasingly viable option in India thanks to increasing Internet speeds and falling data prices. They found that sellers favor video because having things explained in their mother tongue is very important when developing a skill, even if they can manage transactional conversations in English. Therefore, Hindi and English textual training content on the site is complemented by videos, which can be more easily provided in local languages.

Sendy is trialing a new training concept based on the idea that video could be an effective way to reach drivers at dispersed physical locations to coax them into upskilling during their downtime. After struggling to encourage drivers to sacrifice working hours for in-person training, they designed videos for drivers to watch at mechanic workshops or gas stations while their bikes are being maintained or repaired—either on iPads installed by Sendy or on their own phones using Sendy-supported Wi-Fi.

Lynk is also experimenting with different mediums to see which resonate most with the "Pros" (i.e., workers). For instance, its app's "Lynk Lounge", contains videos and text training modules on various topics, such as how to create an appealing profile or provide good customer service as well as vertical-specific tips.

Some are having success with alternate media, like SMS and IVR

Since the launch of Digifarm, Arifu, an edtech company, has provided SMS-based learning content to farmers on the platform, with notable success. In a net promoter score (NPS) evaluation by Safaricom during the initial Digifarm pilot, the Arifu learning content scored a 92% NPS among farmers using Digifarm.³⁹ While the Digifarm platform was first launched via USSD, Arifu's learning content is delivered to farmers via interactive SMS after sessions are initiated from USSD. In addition to training, evaluations are set and certificates provided through the text message service. A smartphone app version of Digifarm and the Arifu learning platform will soon be available, building on text-based learning with video and image content.

Part of Digifarm's service offerings is access to input loans, through Safaricom's M-Shwari product, bundled with insurance provided by Pula and OneAcre. To support these service offerings, along with the digital payment aspect of the platform, Arifu provides financial education training to farmers, which Arifu designed in-house using a human centered design approach and delivers that content using the Arifu chatbot.

In-workflow training moments

In the third approach to upskilling users may not even realize they are receiving training because it is delivered alongside the main functionality of the platform.

These in-workflow training moments draw on an emerging practice of user-experience design that supports learning-while-doing. Recently, the broad concept of *nudging* has become a popular concept in behavioral economics and user experience, but here we refer to a subset of nudges or other cues in which interface and experience design has been deployed specifically to transfer skills to the user.⁴⁰

In other words, in-workflow training moments are not just designed to drive outcomes (work more hours!, drive here!, grab this job!) but to inform better tool use or service delivery.

And, although not every platform employs (or even wants to employ) in-the-moment approaches like nudges, we are seeing examples of extraordinary UX and digital tools that are thoughtfully designed to help users improve their own skills and proficiencies while using them.

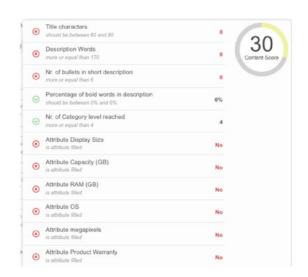
Platforms can deploy real-time coaching

Ronke Olubowale, Head of Driver Productivity at the ride-hailing firm MAX, an on-demand motorcycle-hailing and delivery platform in Nigeria, told us how MAX sends in-app messages to drivers to reiterate and reinforce lessons taught during face-to-face onboarding training sessions. Some messages might focus on defensive driving practices sent alongside daily "safety scores," while others are positioned as tips on how to maximize the in-app heatmaps to remind drivers of where to find the busy hot spots. Other messages still might include a link to a video for deeper coaching engagement.

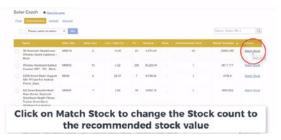
Platforms can use AI to anticipate, identify, and personalize training interventions

While much of Jumia's offline upskilling initiatives are human resource intensive, its AI Seller Coach is designed to provide personalized and scalable content. Jumia provides real-time coaching to merchants as they upload new products to the e-commerce site through the Seller Center's "Content Score", which automatically measures the quality of a product's listing.

The Seller Coach helps vendors increase their online business through subtle hints designed to accelerate their sales and improve the quality of goods on offer. The tool, customized to vendors' individual businesses and integrated into the Seller Center portal, provides actionable recommendations on topics from pricing to stock control.



Screenshot from the "Use Seller Coach" introduction video, on Jumia Kenya's Vendor Hub portal. Source: Jumia Kenya Vendor Hub



Introduction to Content Score Source: Jumia Kenya Vendors Hub

Flipkart's investments in big data and insights analysis technologies enable the platform to support sellers with highly customized insights. This currently manifests in business intelligence insights that help sellers earn more by expanding selection or tuning price.

Flipkart coaches sellers on both product selection and pricing. The product selection tool mines data from customer searches to alert sellers in the same product category to lacking inventory variety and availability. It then turns this into an upskilling opportunity by working one-on-one with sellers to troubleshoot challenges to capitalizing on the opportunity, such as understanding the business case or accessing a photo studio to showcase a new product. The pricing insights engine suggests optimized prices for merchandise based on historical data in their multiple seller environment. Both tools allow Flipkart to offer insights on how sellers can generate more business on the same listings (even when they compete with other sellers) and basic economics about which prices led to the highest conversion rates. Indeed, delivering customized insights for each seller that appreciate the diversity of sellers and their skill sets along a number of dimensions via very scalable technology is both a challenge and a strategic priority according to Nishant Gupta, Head, Flipkart Marketplace.

There's a lot of potential for upskilling here, but it's not easy. Transferring skills to users while in the workflow (sometimes in such a way that they don't realize they are learning new skills), requires a great deal of user feedback as well as thoughtful teams. These kinds of user experiences—which blur the line between *effective* tools and *educational* ones—are fueled by investments in big data, user analytics, and extensive personalization.

Upskilling beyond the platform

Of course, some upskilling occurs outside a platform's leadership or control. Indeed, a quick search suggests that 1.6 billion videos on YouTube include the phrase how to.⁴¹ WhatsApp groups, Facebook groups, and third-party conferences and workshops can exist without a platform's blessing, sometimes even without its knowledge, and are popular resources for entrepreneurs and the self-employed.⁴² Through our "Micro-entrepreneurs in a Platform Era" research in Kenya we found that informal training from family, friends, and mentors plays an important role in helping entrepreneurs navigate the complexities of marketplace platforms. Similarly, the research group FiBR discovered that WhatsApp groups could be a powerful way to provide microconsulting to small enterprises.⁴³

⁴¹ Google Search of "how to," http://bit.ly/googlesearchofhowto. (Including of course, "how to upload a video to youtube," uploaded in 2005. https://www.youtube.com/watch?v=qFyIT7rVZ0Q.)

⁴² Partnership for Finance in a Digital Africa, "Learning and Literacy," https://mse.financedigitalafrica.org/2019/01/upskilling/

⁴³ Swarup, "What If We Offered Business Support to Small Merchants Over WhatsApp?" http://bit.ly/2kvAqXZ.

Content types

In the previous section we described several different approaches to upskilling but avoided remarking on the content or topics covered by those training endeavors. In this section, we flip the lens from approaches to content, reflecting on why platforms have elected to pursue such a variety of upskilling topics.

The most obvious kind of content is the most conventional—the how to onboarding sessions or online FAQs and Manuals—straightforward technical instructions about how a worker or supplier might best use the platform itself. Collectively, we call this content platform proficiency. Every platform explains, at least briefly, how to use the platform itself: how to upload photos, link a profile to a bank account, activate an app so that a user is available to accept rides, and so on. We don't want to discount how important it is that platforms invest in and offer this kind of upskilling, whether face-to-face or online. Indeed, when the platform functionalities are extensive, this training isn't even necessarily basic. The craft involved in being a good platform participant should not be underestimated.

But beyond basic platform proficiencies, most platforms we spoke to engaged in training across a wider array of content types including: (1) vocation-specific tutorials, (2) general digital literacy, (3) financial literacy, and (4) soft skills—that is, the interpersonal wisdom to connect with people effectively and productively. What unites this array, and what most excites us, is that these skills are generalizable.

Vocation-specific content

Some platforms engage directly with the industry-specific skills their workers and suppliers need.

Hypothetically, it's one thing to teach a user how to **sell** a cake on an online platform. It's another thing entirely to teach that user how to **bake** the cake in the first place. Yet we found plenty of upskilling that looked less like selling and more like cake baking.

The motorcycle-hailing and delivery platform MAX focuses a significant part of its training on motorcycle driving practices. Through onboarding and retraining, their MAX "Champions" (i.e., drivers) "all receive extensive training to make them the safest and most professional drivers on the streets." That is, both during their onboarding training and later through retraining activities and on-platform moments, MAX upskills drivers to not only be proficient in using the MAX platform but also proficient in their industry skill of motorcycle taxi driving. Drivers can use these skills on other platforms or in other sectors.

Similarly, the service platform Lynk is developing vocation specific content across multiple verticals. Because Pros' work and products sometimes did not meet their standards for quality—and in the face of inconsistent training standards at vocational colleges and no suitable partners—Lynk has started to bring technical expertise in house so that they can provide technical training and develop vocational content themselves. In this way, platforms are beginning to fulfill some of the roles traditionally played by vocational schools, or even professional schools, to address the skills gaps that would otherwise hold them back.

General digital literacy content



Taobao Training Center. Source: Jessica Osborn

There's a similar element of potential generalizability at play with digital skills. As mentioned above, a lot of platform-led upskilling relates to how to use the features and systems of the platform—how to upload photos, describe the characteristics of an object for sale, and so on. What is more challenging, and yet something platforms do, is teaching general, portable, digital skills.

For instance, Lynk found that their Pros were missing app notifications about potential jobs because they were turning off data on their phones out of concern that it would deplete their credit and drain their battery. However, they also noticed that Pros were not using the entirety of their data bundles before they expired: these concerns stemmed from a lack of knowledge about how to manage data. Now, the company trains workers on things like how to buy a data bundle and how to see how much data is left in a bundle and determine which apps are draining the battery and data and turn these off.

Similarly, Alibaba identified a need to improve the quality of rural producers' product photographs to improve their sales on the Taobao platform. Now they work with third parties to provide training on how to take high-quality photographs alongside training on better online marketing, handling customer service via chat, and promoting products via live streaming.

The global online work platform Upwork teaches workers about the importance of privacy and security, both during webinars that the company holds regularly and through a "Trust & Safety" FAQ section on its website. The training reinforces transferable knowledge on keeping computers safe, keeping private information safe, and avoiding phishing and scams.

The Ghanaian e-commerce platform Ahwenepa teaches the artisans on its platform how to leverage social media as a marketing tool. According to Henry Nii Ayi Cobblah, Founder of Ahwenepa, this digital literacy training focuses on "marketing Ahwenepa links on social media channels, and then the implementation of how to get social media strategies up and running." Initially training focused on platform proficiency but, as Cobblah noted, "this became too boring for vendors" and they started to look at what other tools artisans were accustomed to using to promote and market their products:

We tell them that our platform is a way to optimize and organize their products, and social media sites are a means of marketing.

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Some platforms told us that they seek to attract users with digital skills instead of training them. For example, a smartphone is a prerequisite for becoming a MAX "Champion" (i.e., driver). But others have told us that they began teaching digital literacy because those skills are simply lacking in their markets. Even at MAX, not all drivers have the basic digital skills required to succeed when they first join. These drivers are put in a special pool and trained accordingly.

The Ahwenepa and Taobao examples are particularly powerful because these are not just basic skills. Social media marketing, that is, the multifaceted digital literacy of knowing how to generate and manage positive attention across multiple platforms and channels, is an empowering skill for the digital age and inherently generalizable. Beyond whatever sales artisans generate via these platforms, they may also be deriving marketable, empowering knowledge from training of this kind.

Financial literacy content

Some financial training topics—linking a bank account to a profile, calculating sales tax, and so on—are best seen as extensions of platform functionality. But, as is the case with vocational skills and digital literacies, some platforms find it necessary to teach general financial literacy, such as business practices, like accounting, or personal-finance practices, like budgeting and saving.

Flipkart identifies areas where the seller ecosystem needs support and where, as a platform, they can help meet some very specific needs. To this end, financial literacy has been an ongoing area of focus. Recently, Flipkart formed a partnership with the chartered accountant fintech firm ClearTax to answer general queries about financial transactions and e-commerce. Examples include how to register the business, obtain a tax registration number to do business online, and register a trademark.

We recognized that we may not be able to solve each use-case ourselves, so we partnered with a company that specializes in this and can deliver lots of value to the seller.

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- Nishant Gupta, Head, Flipkart Marketplace

Previously, Flipkart stepped in to provide specific financial literacy training. In July 2017, India changed from a VAT to a goods and services tax (GST) regime. According to Gupta, this

was a huge change for the entire country and anyone filing taxes was impacted. During the transition, Flipkart ran a campaign and initiative called Flipkart GST Genie—an eight to ten month program to inform affected users how GST would work so that Flipkart sellers would be prepared to continue their businesses under the new scheme. The program instructed sellers on everything from the fundamental concept to how GST would affect seller businesses on Flipkart as well as teaching sellers exactly how the transition would affect invoicing, taxation, and so on.

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We are very proud at the end of the transition that there was a third-party study in which sellers voted Flipkart as the number one platform that assisted them during that transition.

— Nishant Gupta, Head, Flipkart Marketplace

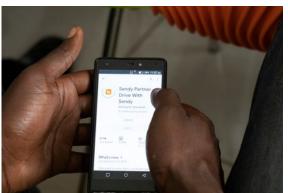
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Face-to-face financial literacy upskilling at Uber, in partnership with Old Mutual Source: Uber

Alternatively, as a loyalty benefit, Sendy provides riders with the option to join their Savings and Credit Co-Operative (SACCO), which enables them to save KES 200 (about \$2) or more of their rider fees per week and withdraw double the amount they have accumulated whenever they choose, which they then repay on a weekly basis. During training, Sendy actively encourages riders to use this facility to save money, highlighting how this practice prepares them for medium- or long-term financial needs and teaches them how to plan their finances to maximize their accumulated

savings, for instance by buying a second bike. Sendy also provides training on pricing. The company sees the value of drivers transparently knowing what they will earn upfront and having a simple pricing structure that is easy for them to understand. Sendy then trains drivers on the pricing structure so thoroughly that they can then use the principles in their



User downloads Sendy app Source: Neha Wadekar

own businesses. "We are basically teaching them how to run a business," said Victor Maina, Sendy's Commercial Director.

Finally, the global ride-hailing platform Uber partnered with Old Mutual to equip Uber driver-partners across sub-Saharan Africa with financial management skills. These "On the Money" financial literacy training sessions are in-person educational seminars run by Old Mutual for

Uber driver-partners.⁴⁴ The sessions, held at Uber's Greenlight Hubs (dedicated driver-partner support centers), aim to equip Uber driver-partners with critical money management skills, entrepreneurial skills, information on how to best manage their finances, the habit of proactive saving, and developing healthy savings habits. The program was launched in 2016 in South Africa, and, following the success of the program there, expanded to Nigeria, Ghana, and Kenya in 2017 before relaunching across South Africa in 2019.

Uber is committed to empowering driver-partners across sub-Saharan Africa (SSA) and works hard every day to upskill driver-partners to build and sustain their small businesses. The financial wellbeing of driver-partners is an ongoing priority and Uber wants to support the women and men who use the Uber app to grow their small businesses as when driver-partners succeed Uber succeeds too. Uber hopes to encourage a habit of proactive saving and developing healthy savings habits as well as help them understand the different saving methods available to them.

- Alon Lits, General Manager for Sub-Saharan Africa at Uber

Training for financial literacy is difficult and labor-intensive, and obtaining significant, durable results can be difficult in the classroom, let alone online.⁴⁵ Whether they reside in formal school settings or platform-sponsored training departments, the designers of financial literacy programs need assistance, investment, and the mutual exchange of best practices to be successful in their efforts to upskill digital literacy.

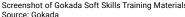
Soft skills content

A final area of multifaceted, lifelong learning challenges surrounds the idea of *soft skills*: interpersonal intelligence, presentation, courtesy, attentiveness, and so on. Soft skills are essential for platform environments where producers meet customers face-to-face as well as those where producers have direct electronic relationships with customers.

Both MAX and Gokada, two of the leading motorcycle-hailing platforms in Nigeria, view soft skills training as one of the most important elements of their driver training. For MAX, soft skills training, such as how to answer calls and provide good customer service, is the first priority for driver training. "Soft skills training is very important to us because customer satisfaction is key," shared Ronke Olubowale, Head of Driver Productivity at MAX. At Gokada soft skills training currently focuses on communication and behavior, but they plan to expand this to personal grooming and etiquette. Recently, Gokada partnered with Wave Academies to develop and deliver ad-hoc refresher training focused on customer service. "Training is focused on what makes a good customer experience, what are the requirements from a behaviors standpoint," shared Ayodeji Adewunmi, co-CEO at Gokada.

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4Ps of Customer Service

- Promptness: Promises for service delivery must be on time. Delays and cancellations of products or services MUST be avoided.
- Politeness: Politeness is important in customer service. Saving 'hello,' 'good afternoon,' 'sir,' and 'thank you very much' are a part of good customer service. For any business, using good manners is appropriate whether the customer engages your service or not.
- Professionalism: All customers should be treated professionally, which means the use of competence or skill expected of the professional. Professionalism shows the customer they are cared for.
- · Personalization: Using the customer's name is very effective in producing loyalty. Customers want who they do business with to know them on personal level.

Gokada recently shut down their operations for ten days in a bid to improve some ongoing issues. 46 One of the focuses of the Gokada 2.0 initiative was retraining drivers on soft skills as well as other key functions of the platforms. "We're closing shop to retrain our drivers on customer service, hygiene, driving and navigation use," wrote the CEO Fahim Saleh.

Likewise, Uber provides training on how to deliver a great customer experience at multiple touchpoints in a driver-partner's journey. It forms part of both the onboarding training and refresher training. Uber retrains driver-partners on soft skills if ratings fall below a certain threshold based on Uber's community guidelines. 47 Driver-partners receive the link to an online course in app and via email. The customer service module includes videos and text content as well as short quizzes to consolidate learning. By hearing from their peers through short videos, Uber driver-partners learn how to improve their customer service and hence ratings. Once the driver completes the training module they are reactivated on the platform.

Lynk also understands that soft skills are critical and provides soft skills training interpersonally, online, and via in-app moments. Not only does it provide this training during onboarding, it also reinforces it on small reference cards, given to each Pro, that map out the steps for delivering a service to a customer complete with explanations about the importance of punctuality and sample scripts for different scenarios; for example, what to say if they were late, how to deal with an unsatisfied customer, and so on. It also sends reminder messages via SMS in the moment, like: "your appt is in one hour," "time to leave soon," these are the items you will need to deliver this service," "call the client to let them know you are on your way," "here is a suggested script for you to use when you meet the client."

Notably, Sendy takes a different approach, emphasizing incentives and flexibility rather than analysis or routinization:

Analyzing [our drivers] would be easier and might create better positive impact but we want to make sure they are empowered to make their own decisions not just follow a script. There are so many scenarios we can't anticipate.

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- Marvin Kirschener, VP Growth & Data, Sendy

To Sendy, "this means that when drivers do deliveries outside of the platform they are empowered to apply these same principles—people can think for themselves."

Some of our discussions about soft skills underscored how challenging it can be to teach such topics. The term has become a catch-all for anything outside technical and vocational skills, and, in some contexts, *soft skills* can evoke deep class tensions with symbolic, socioculturally embedded complexities that *far* exceed the construct of skills transfer. As Raval and Pal's⁴⁸ research with platform-based beauty workers in India illustrates, the *"enactments of professionalism"* are an interplay between the rules of the platform and the choices and dignity of its workers. We recommend that platforms considering soft skills as part of a training curricula be particularly attentive to how such training is interpreted and experienced and design with the trainees, rather than for the trainees.

When taught, content is combined, not discrete

The lines between content types can be blurry. There are overlaps between vocational training, "how to run a shop"; financial literacy training, "how to keep the books"; digital literacy training, "how to back them up"; and soft skills, "how to keep a customer."

Nowhere is this more evident than in the idea of teaching e-commerce. Again, as Valentine Wambui, Head of Vendor Relationship Management, Jumia Kenya remarked:

A big part of the training is demystifying what e-commerce is. There are lots of assumptions that it is easy to transition an offline business into the online world. Training is aimed at clarification and building understanding.



The first question Jumia poses in its onboarding vendor training sessions is "What is e-commerce, and how does it differ from your offline business?" Through classroom training, online videos, short blogs, and in-workflow training moments, Jumia is constantly upskilling and re-skilling its vendors with offerings that include a combination of these generalizable skills—financial literacy, digital literacy, and digital sales and marketing—that become mixed under the banner of e-commerce.

The business case for platform-led upskilling

Put together, the three approaches to upskilling (interpersonal, online, in-workflow training moments) and the five types of content (platform proficiency, vocational, digital literacy, financial literacy, soft skills) can be expressed as a matrix of possibilities for individual platforms. No two platforms are likely to populate this matrix in exactly the same way, and therefore there is no single rationale that, at this point, we can express in terms of a discrete return on investment. That said, many platforms have found that there is a solid business case for platform-led upskilling. These general findings suggest a few reflections about the state of platform-led upskilling:

Platforms upskill because they have to

- Training is a differentiating factor, we are happy to make the upfront investment. We understand that within the marketplace, drivers are really critical and whoever is going to win in the market will have over-invested in the drivers, so more than happy to make this type of investment.
 - Ayodeji Adewunmi, co-CEO at Gokada
- Training is a necessary investment, and key to platform growth. Sellers who are successful have gone through training...Training results in sustainable income for merchants and more revenue for Jumia.
 - Sam Chappatte, CEO of Jumia Kenya
 - Flipkart is a marketplace so the entire success of where we are is attributable to the sellers. Our growth has to come from the sellers. We focus on: "What is the value we can help them build?"
 - Nishant Gupta, Head, Flipkart Marketplace

Many digital platforms view the training and upskilling of their producers as a core strategic activity and central to their success because the producers represent a platform's brand and business. Consequently, when platforms train their users, it positively impacts customer satisfaction, business, and sales. Moreover, since platform revenue (e.g., Gross Merchandise Volume (GMV), commissions, and value added services like outsourced logistics for sellers) depends on producers increasing volumes, platforms fail when their participants lack the necessary skills to be effective across the platform.

Whatever we sell on the platform goes with the name of the platform, not the name of the vendor. Training is crucial. Products on platform represent platform. Training is the way to improve our brand and service.

- Henry Nii Ayi Cobblah, CEO of Ahwenepa

This centrality is evidenced by key performance indicators (KPIs) that link operational performance to seller upskilling initiatives. For example, Flipkart uses "seller satisfaction scores," generated by every interaction between Flipkart and a seller, as a key metric within their business. Flipkart also tracks metrics specific to each upskilling initiative. For example, for the organization's 60-day business incubation (upskilling) program, the following KPIs are tracked: how many sellers listed how many products; how many sellers were able to dispatch a product on time; how many people were able to use a multitude of adoption of services; how many sellers are transacting on the platform; how many are getting above a certain threshold of business. These metrics work alongside seller satisfaction scores to help Flipkart translate its upskilling initiative targets into realized operational goals. In this sense, skill acquisition is not itself a KPI, but it is linked clearly to service and sales-related KPIs. Flipkart's integration of skill acquisition into related KPIs is illustrative of an organization that has thought carefully about how to integrate training and upskilling into its business model.

Possibilities in Platform-Led Upskilling

Approaches

Content	Interpersonal formal training delivered 'live' by a person	Online formal training encoded in digital materials	In-Workflow Training Moments delivered while user is mid-task
Platform Proficiencies			
Vocational / Professional Skills			
Digital Literacies			
Financial Literacies			
Soft Skills			

Nobody told platforms they had to do upskilling, especially upskilling beyond the basics of "platform proficiencies." In fact we'd suggest that, despite these quotes, they don't want to do very much of it. Perhaps in an ideal world the rest of the ecosystem would take care of all worker training. Workers and vendors would graduate from secondary schools, technical programs, and universities with all of the right skills in place. Barring that, other parts of the value chain, larger suppliers, third-party training academies, and so on would take care of the gaps (and indeed, certificate programs and lifetime training is a popular and important part of the ecosystem).

However, at least in the near term, that is not going to happen in many emerging markets. Accordingly, the platforms have to take charge. ⁴⁹ Just as platforms are tackling other institutional voids characteristic of nascent markets, so too are they addressing skills gaps—and skills voids and deficiencies—left by weaknesses in the institutions that might otherwise provide them. Whereas a platform working in the Global North might be able to invest mostly in platform proficiencies, platforms working in the Global South must invest in training around concepts that are more likely to be generalizable.

Calibrating the right mix of approaches and content is an ongoing and expensive process

We were struck by the prevalence of offline, face-to-face interpersonal training across the platforms—for producers large and small, skilled and not-so-skilled. Some platforms offer online materials, especially video. Others indirectly upskill producers through in-workflow training moments during their platform transaction journeys, through apps, SMS, email, and online portals. Platforms, many of which invest in a mix of approaches, often base their upskilling choices on tailored insights garnered from insight engines processing big data. Each platform has to choose:

The mix of delivery methods. There is no simple method to determine which approaches and content types will generate the best return on investment. Generally the economics of face-to-face content accept higher costs-per-trainee in exchange for rapid customizability and more reliable impact. Nothing beats a face-to-face training session, at least until you have hundreds or thousands of suppliers to train. Similarly, the investments required to bake anticipatory AI or other in-the-moment interventions into the workflow are expensive but effective.

The breadth of vocational content offered. Regardless of the approach, another variable is the breadth of the platforms' offerings. Developing vocation-specific upskilling content will be more costly for platforms that touch multiple vocations than ones that focus on just one or two sectors. It is probably worthwhile for Uber to train its driver-partners on the vocational skill of better driving, but the same returns, distributed across dozens of content categories, might be more challenging to attain for multi-service platforms like Upwork.

The source of the upskilling. Greater reliance on third parties, or even on crowdsourced content, might alleviate some of this burden of production for platforms. Some of YouTube's 1.6 billion how-to videos might be applicable to the vocational skills that platforms are mediating. Moreover, linking to YouTube could prove more cost-effective than the upskilling that platforms themselves could provide. But reliance on third parties is not a recipe for quality control, tailoring, or advantage in something as difficult as training. So it makes sense for platforms to do more training in house as they grow.

Clearly, the upskilling challenges for a delivery app are different from those of a retail marketplace or an agricultural marketplace. That said, there are commonalities, and we suggest that platforms can think more expansively about training by looking at what platforms outside their sector are doing. Because platforms are investing heavily in experimenting with different training techniques and modalities to find the most effective approaches, sharing best practices across sectors could add value.

Platforms do most upskilling themselves because of a lack of partnerships

In our discussions with platforms, both one-on-one and in workshops, we heard enthusiasm for solutions where third-party experts could be counted on to design and deliver training. While there are some partnerships in place—Sendy works with the bike manufacturer Yamaha, Gokada with a defensive driving academy, and others work with specialty vendors, such as Uber's partnership with the mobile training solution EduMe—in general there is a dearth of suitable partners and advantageous partnerships, and most platforms agree that this is a major challenge.

Platforms are trying to find third parties to help relieve some of the training burden, and third parties are slowly starting to realize the potential. But more needs to be done both in terms of improving the quality of outsourced, third-party training options and connecting platforms with suitable providers.

The development case for transformational upskilling

We see opportunity where others might see frustration. To the extent that platforms are engaged in training that results in increased skills, they have a unique opportunity to enter into discussions and possibly partnerships with other actors in the broader development community, including governments, development organizations, policy researchers, and educational institutions—the entire constellation of actors involved with reconceptualizing an inclusive and productive digital age. Platforms, themselves, are sometimes present in these conversations, but this paper outlines a way to expand in new directions.

These new opportunities are most specifically and clearly in play whenever the content involved extends beyond simple platform proficiencies to skills that might promote a less contingent, locked-in relationship between workers/suppliers and the platform. We argue that platforms are likely to have greater success when speaking to others about generalizable skills—the very same skills in financial and digital literacies, vocation-specific activities, and even in soft skills—that the platforms themselves have diagnosed as necessary to train their users on. We call this subset of upskilling *transformational* upskilling.

Why portable, generalizable skills are transformational

Within these generalizable skills we see one of the strongest points of alignment between (a) what platforms have come to realize they need to offer and (b) what the societies in which they function need more of.

Platform-led upskilling can be particularly impactful—particularly transformational—when it transfers generalizable skills to digital workers.

The result of such transformational upskilling is a mutually beneficial relationship between platforms, individual workers, and the skills available among a workforce as a whole.

Content is the single greatest factor differentiating transformational upskilling from simple platform proficiencies. Platforms must have a kind of generative, transformational spirit to give workers skills that they can potentially take elsewhere. In other words, as Hoffman, Casnocha, and Yeh put it, even in an age without lifetime employment,

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Employees invest in the company's success; the company invests in the employee's market value. By building a mutually beneficial alliance rather than simply exchanging money for time, employer and employee can invest in the relationship and take risks necessary to pursue bigger payoffs.⁵⁰

We've illustrated how these same principles extend far beyond the white-collar and professional LinkedIn situations Hoffman and his colleagues were describing. If upskilling is to thrive under the new constructs of the future of work, it must work for everybody, not just high-skill, high value workers, ⁵¹ and it must work outside the confines of employeremployee relationships. Our discussions suggest that, indeed, platform-led upskilling does just that. Thus, while it might seem counterintuitive, marketplace platforms are demonstrating that the returns on teaching generalizable skills outweigh the costs of the upfront investments.

In this sense, the platform activities are creating "human capital"—capital which can be allocated in many different contexts within an economy.

This is what economies crave and what makes sectors expand with productivity and prosperity.

New actions

Here we move from description to prescription. We suggest that this generativity, this link between investing in individual workers and contributing to the broader pool of skilled workers, allows platforms to form strong relationships between their actions and the goals of the broader economic development community. Transformational upskilling is the kernel of a potentially powerful alignment between the respective strengths and goals of marketplace platforms, their users (laborers, suppliers, and customers), and the development community's interest in promoting prosperity and more highly skilled workforces around the world.

Platforms can start by scanning their environment for best practices that will enable them to meet their own goals. Beyond that, platforms and the development community can work together in mutually beneficial ways to bring about a more inclusive and productive digital society. To do that, they need to listen to each other and frame the inherent challenges in a way that speaks to all: they need to find ways to partner and build an evidence base, a thriving community of practice, and thriving ecosystems.

Platforms can...

1 Improve their own upskilling, on their own and right away

Among our interviewees, some of the most successful implementations of upskilling started with the realization that upskilling could be treated as an investment rather than a cost: upskilling generates participant retention (loyalty) and safeguards the value of a platform's brand by increasing productivity and improving the availability and quality of goods and services on the platform. Now that a critical mass of platforms have begun upskilling we encourage all platforms to evaluate and benchmark their own upskilling activities against the activities of competitor platforms and those in adjacent sectors.

It's also been demonstrated that, expanding the lens of upskilling to generalizable skills—skills beyond those required to simply operate on the platform—allows platforms to differentiate themselves from competitors. Indeed, in some markets, platforms may have an opportunity to engage with workers' financial or digital literacies and soft skills or even offer content on the trade or craft at the center of that market, be it shoemaking, restaurants and tours, or editing.

2 Frame upskilling investments as transformational

In our discussions with platforms, some were eager to describe their upskilling and training activities using language reminiscent of this transformational approach. Others focused more narrowly on the goals of the platform itself. Again, whether platforms view training as a cost or an investment matters. And, if it's an investment, how is it measured? Who in the organization is responsible for it, and how much authority do they have? How do marketing materials, and the links between the platform and states, value training? How is ROI defined?

Amazon India, for example, points proudly and prominently to the 700+ videos on its Indian "Seller University" site as one of the ways in which it is generating economic impact for India—how it is "Impacting Lives." 52 Similarly, Flipkart told us:

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The seller success story reflects better on the program than business ROI metrics. For example, we spoke earlier about one of the women sellers whose story was she was not on par with men in the family and grew her business online. That video delivered really high engagement within Flipkart, but in general, the uptake externally and recall on that story was phenomenal.

Likewise Echo, a local marketplace for microenterprises in the UK, described in 2015 how proud they were not only of the onboarding training they offered (which they say increased sellers' volumes on the site as much as twentyfold), but also specifically that it helped users beyond the platform:

Crucially, bringing users together regularly offline for both training and networking "socials" helps to develop the social capital and relationships they need to trade outside of Echo, aiding the development of resilient local communities, which is a key driver for us. Echo users are now going on to develop commercial relationships outside of the platform—hard to track but a great early outcome.⁵³

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Companies that, like Echo, frame worker/microenterprise successes in which they will never directly participate as a key goal, are part of the shift to transformational upskilling.

Together, platforms and the development community can

3 Forge new upskilling partnerships

A new program launched recently (July 2019) by Flipkart illustrates how platforms and the development community can form partnerships around upskilling initiatives. Flipkart Samarth is a new program that aims to bring India's artisans, weavers, and handicrafts producers into e-commerce. With dedicated support for onboarding, cataloguing, account management, and business insights, Flipkart Samarth coordinates with various governmental and NGO organizations to deliver training and other benefits to help rural entrepreneurs launch their own e-commerce businesses.

In general, partnerships like Samarth present an opportunity to work with smaller-scale suppliers, lower-skill workers, and so on; this is both an opportunity and a constraint, but it is a definitive path to linking platform activities to discussions about economic inclusion and development. Such partnerships may help extend platform livelihoods beyond the more digitally savvy, early adopters.

4 Build an evidence base around Platform-Led Transformational Upskilling

This paper presents some broad themes emerging from a focus on the role platforms play in training, but it should be seen as an initial effort rather than a definitive guide: We discussed upskilling with only a small sample of the hundreds of marketplace platforms active in Africa and South Asia.

A stronger evidence base for the effectiveness of Platform-Led Transformational Upskilling will facilitate greater investment and new partnerships between platforms and the development community. Moreover, there are remarkable, new opportunities for platforms to work with researchers to develop a broader evidence base along several dimensions related to platform-led upskilling.

The contours of upskilling, and what works best for platforms, workers, and broader economies, will vary by sector, geography, and business model. For example, although this report has interwoven results about marketplace platforms for goods, services, and labor, the skilling requirements when the supplier is a company may not be the same as when the supplier is an individual labor seeker. It's one thing to train *people*, and another to train *suppliers* which generally entail multiple staff that can change over time.

Notably, the evidence base remains relatively sparse in terms of demonstrable return on investment for individual platforms. The set of challenges and framings was so heterogeneous that we have not sampled systematically or quantitatively to derive a return on investment figure for training. That would be better pursued on a case-by-case basis.

The evidence base around which skills are actually transferable is similarly sparse. Training is notoriously difficult, and—while we are enthusiastic that the on-the-job, close to the livelihood style training that platforms can offer may have a great deal of resonance and suitability for adults—we don't yet have enough evidence to know which training approaches or topics are more or less transferable, nor which of those particular skills is most important, either in terms of the overall portion of highly skilled workers in a country, or to the overall marketability of individual workers.

When working in the constructs of development, all of these impacts need to be understood relative to the dynamics of economic inclusion and exclusion. So, in the long run, it will be important to develop an evidence base that pays particular attention to whether and to what degree these kinds of training effects impact those most in need of livelihoods. For instance, how does this intersect with languages of instruction? With rural versus urban locations? With age and technology savviness? And, particularly, with gender? In other words, how does transformational upskilling relate to broader efforts underway to make the contours of the digital society more equitable and inclusive than the industrial and agricultural societies that preceded it? We should be careful how we approach transformational upskilling to avoid creating dynamics that follow existing patterns, such as the risk that these benefits will accrue disproportionately to the digitally savvy and digitally connected rather than to historically disadvantaged or vulnerable communities. So

There is a great deal to explore and catalyze, and it will be important to gather evidence of best practices in the years ahead. And, as the development community is particularly well-suited to do, it's important to understand this new form of skills building through the lens of inclusion versus exclusion.

⁵⁵ World Bank, "Digital Jobs for Youth: Young Women in the Digital Economy," http://bit.ly/digitaljobsyouth; Bailur and Smertnik, "When ID Works for Women: What's the Role of Identification in Helping Women Get Access to Work?" https://medium.com/caribou-digital/when-id-works-for-women-whats-the-role-of-identification-in-helping-women-get-access-to-work-2eeeabaf209a.

⁵⁶ Toyama, Geek Heresy: Rescuing Social Change from the Cult of Technology, https://play.google.com/store/books/details?id=2w6CBgAAQBAJ.

5 Nurture a broader community of practice

Clearly, platform upskilling is not one thing carried out by one person on one platform. Depending on a platform's size (and needs, business model, and culture), it may draw on operations people, or education specialists, or third-party training vendors. Training initiatives will involve frontline trainers and experience designers, coders and technical writers. Beyond the platforms, transformational upskilling will include researchers and policymakers as well as government, education, and labor ministries seeking to improve skills in the workforce. Wherever you draw the boundaries of what is unquestionably a broad conversation, transformational upskilling has the makings of a multi-stakeholder, transdisciplinary, multinational community of practice.

Platforms can learn a great deal from each other, and others in the broader development community can do much to catalyze knowledge sharing across platforms. Organizations that do any or all of these can form the backbone for a community of practice that will accelerate learning in the area, catalyze and disseminate best practices, and create new opportunities for collaboration to scale between the development community and platforms themselves. In the months ahead, we look forward to being part of a process to grow this community through workshops, future work, and consultations. If we are successful, the community of those speaking about transformational upskilling will soon be far broader than those we interviewed for this project.

6 Build an ecosystem around transformational upskilling

Finally, as this community of practice comes into being, there's an opportunity to think about how it can lay down new pathways for collaboration and new social and economic infrastructures to further amplify the benefits of transformational upskilling.

For example, the portability of skills would be dramatically improved by turning platform training experiences into certification programs that allow individuals to demonstrate that they have acquired skills from one platform in livelihood activities or even sales relationships with other partners and customers. This kind of portable certification benefit is not the kind of thing that one platform can offer on its own, instead, it would emerge from a coalition of platforms, governments, and other actors eager to see skills become as visible and portable as possible.

Additionally, if individual workers or suppliers can be certified, so too can specific platforms; one idea might be to offer B Corp Certification to platforms that have demonstrated a commitment to transformational upskilling. This could also dovetail with efforts like Fairwork which have focused on evaluating the extent to which platforms are supportive of the workers in their systems.⁵⁷

As upskilling continues to grow there will be additional opportunities for other specialist training companies, like EduMe, to work with platforms and serve as important parts of a training ecosystem. This ecosystem would also include schools, traditional employers, and universities. For example, Ajira Digital, an initiative of Kenya's Ministry of Information, Communications and Technology, offers digital literacy training that helps prepare would-be platform workers for digital jobs.

Conclusion: Platform-Led Transformational Upskilling and the new social contract

Reforming and expanding upskilling and training is essential to the future of work. As this document has highlighted, platforms themselves can be part of reimagining what many—including the World Economic Forum, marketplace platform leaders like Stephanie Kasrial of Upwork, and the ILO—have referred to as a new or reinvigorated social contract between labor, business, and society.⁵⁸

Upskilling is only one part of a broader relationship between marketplace platforms and societies.

Of course, even a widespread rollout of transformational upskilling would not be a silver bullet for the challenges of underemployment in the Global South.⁵⁹ Nor does it represent the sum of any one platform's interactions with the workers, firms, markets, and societies in which it operates.

Our new interconnected digital world must promote "Fairwork" and dignity, 1 protecting crowdsourced and gig workers of all kinds. 2 This might require new ways for platform workers to organize collectively and/or, as the ILO argues, "an international governance system for digital labour platforms... to require platforms (and their clients) to respect certain minimum rights and protections." 63

Our new interconnected digital world must demand privacy protections⁶⁴ and the curtailment of unnecessary surveillance as platforms capture more and more details about people's online lives.

Our new interconnected digital world must also explore using regulatory levers to preserve and create the conditions for competitive markets and ensure that small-scale producers, especially inputs of labor and commodities, retain a reasonable proportion of the overall value created by electronic marketplaces.⁶⁵

Our new interconnected digital world must not place all its faith in the capacity of platforms to become the primary arbiters of training in the digital age. Transformational upskilling is a powerful new component to be promoted and leveraged, but it cannot replace schools, universities, third-party training centers, or the powerful role that peers, friends, and family play in training and mentorship.

⁵⁸ Centre for the New Economy and Society, "Dialogue Series on New Economic and Social Frontiers: Shaping the New Economy in the Fourth Industrial Revolution," http://www3.weforum.org/docs/WEF_Dialogue_Series_on_New_Economic_and_Social_Frontiers.pdf; Kasriel, "3 Solutions to Prepare for the Changing Workforce," https://www.upwork.com/blog/2019/01/3-solutions-changing-workforce/; International Labour Organization, "Work for a Brighter Future—Global Commission on the Future of Work," https://bist/y/ilobrightfut.

⁵⁹ Blattman and Ralston, "Generating Employment in Poor and Fragile States: Evidence from Labor Market and Entrepreneurship Programs."

⁶⁰ Graham and Woodcock, "Towards a Fairer Platform Economy: Introducing the Fairwork Foundation," http://bit.ly/2m8YiRz

⁶¹ Gray and Suri, Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass, https://play.google.com/store/books/details?id=8AmXDwAAQBAJ.

⁶² Berg et al., "Digital Labour Platforms and the Future of Work: Towards Decent Work in the Online World," http://hdl.voced.edu.au/10707/465150.

⁶³ International Labour Organization, "Work for a Brighter Future—Global Commission on the Future of Work," 13. http://bit.ly/ilobrightfut.

^{64 &}quot;The Privacy Project." https://www.nytimes.com/interactive/2019/opinion/internet-privacy-project.html.

⁶⁵ UNCTAD Secretariat, "Fostering Development Gains from E-Commerce and Digital Platforms," https://unctad.org/meetings/en/ SessionalDocuments/tdb_ede2d2_en.pdf.

Finally, our new interconnected digital world must increase worker agency. As we endeavor to retain many of the beneficial elements of the employer-employee relationship outside of its traditional boundaries, it will become all the more important to increase the portability of worker benefits like savings, pensions, and insurance.⁶⁶

All that being said, platform-led upskilling is an increasingly important part of the education and training landscape and thus critical input to building a more inclusive and productive digital society. Accordingly, it is a space in which marketplace platforms and the development and civil society communities are more likely to be partners than antagonists.

Marketplace platforms are not the exclusive stewards of the markets in which they operate—nor would we want them to be—but as this paper demonstrates, platforms in Africa and throughout the world are adding upskilling activities, many of which go beyond narrow platform proficiencies, to their competitive offerings. Platforms benefit by doing so, and, by extension, so do individual users and labor markets.

An old adage, attributed variously to William Butler Yeats and Plutarch, says that education is "not the filling of a pail, but the lighting of a fire." That's the kind of return on investment we should seek: benefits that go beyond either platform or user and instead positively impact society as a whole.

Marketplace platforms are creating an opportunity for a **new type of conversation and partnership** with governments, civil society, and even the rest of an industry sector by expanding their transformational upskilling activities. The more generalizable the skills a platform seeks to nurture, the more amenable other government and developmental organizations may be to co-creating content, piloting programs, and exploring new partnerships.

At the same time, the development community should look for ways to **support the transformational upskilling that platforms want to do**. It's a new way to do business development services, a new way to invest and increase the number of skilled workers in a country—complementing but not replacing what is accomplished by other teaching and training institutions—and a new way to explore and promote best practices in digital learning.

We are grateful to the Mastercard Foundation for the support to work on this project and to all of the platform managers and leaders who took the time to speak with us. We hope readers will reach out and share their upskilling stories with us. We'll capture and share many of them on the website www.transformationalupskilling.org, and we hope this is the first of many conversations to come.

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