Chapter 6
Marketing Poverty – The Conservatism of Social Impact Technologies

"Once you have an idea, you need money": a makerspace employee explained the importance of co-working spaces, pitching events, and media coverage to establish relations between possible investors and technology developers (Interview, November 2015). Telling stories about a technological idea, whether to visitors at a co-working space, at pitches, or on websites and blogs, functions as marketing for startups. As shown in Chapters 4 and 5, the practices of hosting visitors and writing media stories allude to the financial needs that shape storytelling in Nairobi's tech scene: newsletters are written to provide accountability for investors and the hosting of visitors is infused with the hope of their investment. As well as these subtle economic motivations of storytelling, this chapter sheds light on a particular form of storytelling that is a well-known economic practice, namely marketing. As the majority of Kenyan startups are in their early business stages and rely on external support, most of the marketing strategies are not directed at users, but at possible investors and the local community of technology developers (Interview, serial founder, April 2017).

In this chapter, I argue that the promises made in the marketing of technologies are a result of the performative negotiations between (international) investors and tech developers. These negotiations include the tech developers' considerations of whether to strategically utilize the (post)colonial stereotypes expected by Western investors or not. I show that the marketing of technologies from Kenya has ambiguous effects. On the one hand, it constitutes the technologies as social impact-driven, their users as rural and resource-constrained people, and Kenyan contexts as a singularized impoverished Africa. On the other hand, brands such as 'Made in Africa, for Africa' specifically contest the colonial stereotypes of lagging African contexts that depend on

technology from the Global North by creating visibility for technology production in Kenya. Thus, colonial (capitalist) continuities that define how to market technological ideas are intertwined with decolonial endeavors to re-script the putatively peripheral positionality of Kenya.

To analyze the marketing of technological ideas, I draw on STS scholars Elena Simakova (2013) and Steve Woolgar (2004) and their conceptualizations of marketing as performative and constitutive. Both argue that marketing practices constitute relations and identities, such as the identity of inventors, technologies, and their users (Simakova 2013: 31; Woolgar 2004: 454). According to them, marketing stories often serve two goals as they can be told to a public audience as well as to actors inside a community or organization. First, marketing resonates with the expectations of the targeted public audiences and second, it creates meaning and accountability within organizations of technology development (Simakova 2013: 35; Woolgar 2004: 452). As such, Simakova's and Woolgar's approaches to marketing agree with sociologists of expectation who state that storytelling about science and technology builds "protected spaces" within a community and additionally speaks to a public audience to "attract attention from (financial) sponsors" (Brown et al. 2003: 4). Just as storytelling represents continuous socio-material work (see Chapter 5), marketing is also a continuous achievement (Simakova 2013: 34). Therefore, Woolgar (2004: 453) states that any analysis of marketing should always include the circumstances that build and sustain a product identity.

Using this performative stance of marketing, I analyze the content of marketing stories and how they are produced. Therefore, the following pages illustrate the seeming paradox of the critique and simultaneous reproduction of (post)colonial stereotypes in marketing strategies such as those for the 'Made in Africa, for Africa' brand. I claim that marketing practices performatively produce realities; they reproduce existing oppressive structures and at the same time, form (politicized) and empowered communities.

This argument is presented as follows: first, I show that the geographically situated marketing 'Made in Africa, for Africa' functions to narratively intervene in hegemonic imaginations about 'a' passive Africa and furthermore, to build a collective identity of tech developers who care for their local context through social impact technologies. Second, I analyze the oppressive effects of the 'Made in Africa, for Africa' marketing by showing that startups market their technologies with content and images that (re)produce colonial imaginations of a homogenous Africa in need of help. I explain that the marketing's focus on exoticizing representations stems from the preponderance of funders com-

ing from the Global North who prioritize technological projects that foster social impact. By showing the negotiations of Kenyan technology developers between their own visions and the investors' expectations, I argue that postcolonial power asymmetries manifest in the developer-investor relations. These perpetuate the historical entanglement of technology (and entrepreneurship) with development agendas and ultimately define what and who is 'worthy of' funding. I emphasize that the need to gain investment spurs essentialized and conservative narrations of ethnicity and origin in the marketing stories. I call this marketing of technologies a *performance of poverty* because it configures users and contexts as poor and rural, and technologies as positively affecting them. Third and finally, I assess the marketing practices of technologies made in Kenya as paradigmatic for the entanglement of capitalist logics of investment with decolonial endeavors to re-script positionalities. I offer insight into the emancipatory potentials of technology by showing the narrative work of tech developers that counters colonial hegemony and tech-deterministic expectations of social impact.

6.1 'Made in Africa, for Africa': An Empowering Brand

> Do we have our own inherent culture that informs us how we go about building stuff or are we just dancing to the tune of whoever wants to listen?! (Interview, technology expert, November 2015)

Tech experts from the African continent frequently discuss the question of whether a specific 'African' way of building technology exists (Africa Capital Digest 2015; Cofie 2019; Jackson 2017). In the media accounts that discuss the specificities of Kenyan technology development, the emphasis is on local expertise that does not need knowledge 'from outside'. Further, technological innovations are proudly marketed as a continental achievement – 'Made in Africa, for Africa'. As such, the marketing of technology developed in Nairobi – be it through branding, pitching, or writing – aims to re-script Kenya's peripheral positionality within the global tech economy. Thus, marketing is used to tell stories about the agency of Kenyans to develop technology. This narrative work intervenes in hegemonic imaginations about a singular passive Africa and builds a collective identity of tech developers who care for their local context through technologies.

Social Impact Technologies as Community Care

Be it a car, a makerspace, or water barrels – all are branded as being invented and produced in African countries for 'African' contexts. The slogan 'Made in Africa, for Africa' has several variations, but what they all have in common is that the advertisement represents more than a brand for technologies developed in Nairobi. It is the claim of having the expertise regarding what is best for one's own context, and what to make and build for it.

For example, the first car designed and manufactured in Kenya is marketed as 'Designed for Africa. Built in Africa.' (Mobius Motors 2019: n.p.). The makerspace I worked with claimed on their website to "build better products for Africa, in Africa" (Research Diary, August 30, 2016) and 'The Roll Out the Barrel Trust' prominently uses the hashtag #madeinAfricaforAfrica to promote their mobile water barrels on Twitter (The Rotary Water Barrel Project 2016). The hardware company, BRCK, is also an example of the geographically situated 'Made in Africa, for Africa' marketing. Advertising their BRCK internet modem as 'born in Africa and made for Africa' shows the conviction of the developers: "you can't effectively engineer for the realities of Africa if you don't experience the realities of Africa" (Walton 2014: n.p.). According to the CEO of BRCK:

> only … if you get dirt under your fingernails, get thorns in your legs, get sunburn on your face, and really deal with the harsh realities of Africa, will you understand Africa. (Interview, CEO of BRCK, November 2015)

For BRCK's employees, their internet modem is "a solution that is born out of Africa under the specific situation here" (Reg Orton cited in Manske 2014: 7). These statements and the advertisement of technologies being 'made in Africa, for Africa' show that having local knowledge is a must for tech developers in Kenya – because only the contextualized design of technologies is able to tackle context-specific challenges.[1]

1 Geographers Megan K. Blake and Susan Hanson argue that innovation is inescapably contextual. According to them, 'place' is essential for the process of innovation and its resulting form: "Popular advice to the would-be entrepreneur is to identify a need and fill it. The unspoken part of this aphorism is that most needs are defined spatially; properly revised, the adage should be, 'Find a need *somewhere* and fill it *there*.'" (2005: 689). Therefore, they claim that innovation should always be analyzed as the capitalization of knowledge about a specific place and its local customers (ibid.: 691).

Knowledge of daily life challenges – the "harsh realities of Africa" as expressed by BRCK's CEO – means a competitive advantage, as local problems are "unimaginable to an entrepreneur living in Silicon Valley" (Knott-Craig 2015: n.p.). Thus, Alan Knott-Craig, a serial technology entrepreneur in South Africa, states that "the only way to beat the Valley in a race is to ensure the Valley is not competing" (ibid.). Another tech entrepreneur (Karake 2018a: n.p.) advises that, instead of imitating the "casino style investing practices" of Silicon Valley where startups build something without having an exact business model, the business model for every startup in African contexts should be the solution to a basic need. According to these technologists, a startup that builds a social-impact technology which "satisf[ies] both the mass-market poor communities and growing middle classes will make a lot of money" (Knott-Craig 2015: n.p.). In the context of Ghana, Seyram Avle (2020: 4) claims that although entrepreneurial makers are inspired by Silicon Valley's and Shenzhen's knowledge production, they do not cling to any one innovation model, but use both as "tools" to make a regional "Afro techno-future".

Thinking in business terms to capitalize local knowledge (Blake and Hanson 2005: 691) is one reason why almost every startup in Nairobi develops a technology with a positive social impact. Another is the tech developers' desire to support marginalized communities; for example, M-Farm builds "solutions that empower farmers to work and communicate in new and innovative ways" (M-Farm 2020: n.p.) while Eneza Education uses "mobile technology to improve access to education" (Marchant 2014: 12). A founder of several Kenyan tech companies stresses the importance of combining the "technology narrative" with the "development narrative" (Interview, April 2017). According to her, only technologies are able to achieve "social impact at scale" and "social impact being transformational … [and] substantive" (ibid.). In this manner, the Kenyan research partners of Eleanor Marchant (2014: 11) also see the scaling up of a 'local' appliance to the whole continent as the social impact of a technology:

> Nairobi's role as a technology 'gateway' to Africa has pushed its programmers and entrepreneurs, while very proud of their city and the people in it, to focus on broader problems creating tools to address the needs of Africans more widely, with Nairobi more of a testing ground than the penultimate end user for the developers. (ibid.: 18)

The overarching aim of developing technological solutions for a specific Kenyan or broader 'African' community – depending on the definition of 'local'

– represents not only a marketing and commodification strategy, but also an 'Afro-centric indigenous human computer interaction paradigm' (Winschiers-Theophilus and Bidwell 2013). Heike Winschiers-Theophilus and Nicola J. Bidwell describe this paradigm as technology development that is embedded in "African communalism" (ibid.: 246), a "collective ethic … [that] recognizes that survival derives from group harmony and [that] all actions are within a collective context" (Mkabela 2005: 185 cited in Winschiers-Theophilus and Bidwell 2013: 246). Thus, the social impact of a technology represents a way of expressing care for a community. In this regard, the capitalization of local knowledge not only spurs economies, but also improves local life as geographers Megan K. Blake and Susan Hanson found (ibid.: 690). They write that the effects of social impact innovation in marginalized areas in the United States include "meeting legitimate needs in the community (for example, for care of seniors) …, developing skills, and generating social cohesion (for example, via providing a community social space)" (ibid.: 697).

Technologies as Discursive Intervention

The storytelling about technologies 'Made in Africa, for Africa' presents the agency of Kenyans to develop technology that caters for the needs of 'local' communities. Thus, this narrative work intervenes in hegemonic imaginations about a singularized passive Africa and empowers Kenyan technology developers. In this manner, one of my interviewees stated that the 'Made in Africa, for Africa' slogan creates a collective identity based on the uniqueness of one's context (Interview, technology journalist, April 2017). Julia Manske (2014: 14) also found that the international awareness of Kenya's tech scene positively affects the self-image of Kenyans: "M-Pesa's success became an identity-forming narrative", so that young people in particular feel empowered to make Kenyan innovations possible. A former head at a tech hub told me that through all the people who are producing "stuff" in Nairobi:

> The image is starting to change and people are starting to realize that we also have a place in this changing tech scene, here in Nairobi and globally and in the region. (Interview, November 2015)

Various other technology experts in Nairobi emphasize that the international visibility of M-Pesa, Ushahidi, and BRCK have changed the narrative about Kenya: "Before M-Pesa and Ushahidi, the technology narrative did not look

at us. But now it does" (Interview, co-founder of Ushahidi, April 2017). In this vein, the former Permanent Secretary of the Ministry of Information and Technology sees Nairobi's branding as the Silicon Savannah as a sign of worldwide acknowledgment of and respect for Kenyan innovations (Interview, April 2017).

Technologies with social impact are not 'revolutionary' purely because they solve a local problem, but also because their marketing creates international awareness around technology production in Nairobi and thus, contests the clichés of the superiority and universality of knowledge and technology coming from the Global North. The fight against stereotypes of putative dichotomies, for example, center and periphery of technology development, modern and emerging economies, Silicon Valley and its imitators, still defines the daily lives of tech developers in Nairobi even though many researchers and activists have deconstructed and disproved these dichotomies since the emergence of the dependency school in the 1960s. Therefore, tech developers use the marketing of their technologies to intervene narratively[2] in dominant innovation discourses that represent a passive Global South which only acts as a recipient of technologies from the Global North. A researcher and education technology expert explained to me that it is important to interfere in the accepted narrative about technology in Kenya – especially in academic discourses – because it is driven by people who are not a daily part of the innovation scene. She said, "the fact that … we were able to access that research by participating in the conference helped us to correct the narrative … [of] what's being told out there" (Interview, November 2015).

6.2 'Made in Africa, for Africa': Marketing's Performance of Poverty

The existence of technology development in Kenya refutes the common stereotypes of the African continent as a non-technological place. However, the marketing slogan 'Made in Africa, for Africa' and the social impact focus of tech investors result in imaginations and images that homogenize Africa into a single rural place that lacks infrastructures.

If we look at the BRCK advertisement in detail (see quotation below), we are presented with a technical device that is robust like a brick, works (among other

2 Tegan Bristow (2017: 299) explains that "narrative, particularly in Kenya but largely on the continent, is a more comfortable, interactive and traditional way through which to produce and engage cultural critique".

functionalities) like an internet modem, and is made especially for "harsh environments" (Mushakavanhu 2017: n.p.). According to its developers, the motivation to develop such a device was the fight against poor internet connections which shapes daily life (Shapshak 2017). Therefore, BRCK developed a modem with its own battery, so that it would continue to work unaffected by (the frequent) power cuts. Additionally, it is built to be water and dust repellent. BRCK advertised its modem on the company's website as follows:

> Made to work where others won't: most routers and modems are built for New York and London, whereas most people connected to the internet today live in places like Nairobi or New Delhi. The BRCK was designed to work in harsher environments, where the infrastructure isn't robust. The rugged design of the BRCK allows for drops, dust and weather resistance, and dirty voltage charging. (BRCK 2016)

By comparing the infrastructures in "places like Nairobi or New Delhi" to cities in the US and UK, the company defines infrastructures in the Global South as unstable and endangered by a challenging environment. If we combine this marketing of a technology built for a "harsh environment" characterized by hot sun, dust, tropical rain, and disrupted connectivity with the branding 'Made in Africa, for Africa', an exoticized and generalized image of 'Africa' emerges (see Said 1978/1979). Thus, BRCK's marketing represents a whole continent as harsh and wild, and the continent's obstacles as the needs of rural societies.

Komaza, a Kenyan startup, is another example of a technology developed in Nairobi being marketed by using "humanitarian communication" (Chouliaraki 2010: 108). This means that the marketing resembles the global media coverage about African contexts that predominantly portray women and children who live in rural environments where resources are scarce (see Nduka-Agwu and Bendix 2008). Komaza developed a technological solution to environmental degradation, and in 2020 it was one of the top five most invested-in startups in Africa (Disrupt Africa 2021: 9).[3] Komaza created the concept of 'microforestry', meaning that "tens of thousands of small-holder farms" each grow trees for commercial purposes (Komaza n.d.). Via Komaza's platform, the wood is sold as fencing poles. The startup explains that their impact is twofold: first, they support the reforestation of degraded ecosystems and, second, they help farmers to earn income from their land (ibid.).

3 Komaza attracted investment totaling US$ 28 million in 2020 (Disrupt Africa 2021: 9).

Looking at Komaza's website, the first image shows a woman wearing a colorful headwrap surrounded by trees (Research Diary, July 25, 2021). The website welcomes its visitors to "Africa's new face of forestry" (Komaza n.d.) and claims that Komaza is "revolutionizing African forestry" (ibid.), indicating the startup's aim to scale their technology to the whole continent. I argue that the perpetual references to 'Africa', the target customers of farmers who live in degraded environments, and Komaza's social impact of alleviating poverty, homogenize all African contexts into one rural place where potential customers are in need of technological solutions to their, often structural, problems, such as poverty.

Homogenizing and essentializing identities and places is a major effect of the branding 'Made in Africa, for Africa'. According to geographer Andy Pike (2009: 637), branding that refers to a country of origin always represents "geographically inflected characteristics (e.g., efficiency, quality, reputation, tradition) connected to and resonant of a specific type of space or particular place":

> The Sony brand and its branding, for example, are inescapably entangled in spatial associations and connotations of ingenuity, high-technology modernism and innovation situated in the geo-economic context of the company's specific role in the particular history of Japan's late industrialization, rapid economic growth and contested economic leadership in east Asia in the postwar period (Haig, 2004). (ibid.)

Referring to the origin of technologies developed in Kenya as 'from Africa' evokes images of essentialized geographic characteristics such as rurality. Nairobi's branding as the 'Silicon Savannah' is another example of semiotic references to environmental conditions in Africa. The fact that Nairobi is an urban metropolis and not a savannah shows that *nature* is an exoticizing narrative characteristic in marketing stories about African contexts (see Chapter 3). In this regard, communication scholar Touissant Nothias (2014: 328) pointedly remarks that Afro-optimistic media reports combine neoliberal "signifiers of modernity, economic attractiveness and progress" with narrations of "sun, savannah and wilderness – [that] are an integral part of a colonial portrayal of Africa". In addition to depictions of 'natural' environments as rural, the potential customers in Africa are also homogenized as rural farmers who lack access to various infrastructures.

To sum up, the marketing of contextualized technologies as 'Made in Africa, for Africa' stages Kenya as an active technological producer on the one

hand, while performing and (re)producing colonial imaginations about a rural and poor Africa that is in need of solutions, on the other. This reproduction of discriminatory stereotypes stands in contrast to the tech developers' political endeavor to change essentialized imaginations about Africa through storytelling. To understand why tech developers market their technologies in such a way, I show that their marketing is directed mainly at investors in the Global North rather than local customers. As such, the following pages depict the investor landscape in Nairobi, investors' motivations, and the postcolonial power asymmetries inherent in investor-developer relations.

Investors' Expectations of Social Impact

The answer to the question of why the critics themselves use the dismissed tropes of 'an Africa where resources are scarce' is not found in "the harsh realities of Africa" (see above), but rather amidst the harsh realities of business life, namely the acquisition of money. As well as the high taxes on imported goods and the resulting difficult access to resources and machines necessary to prototype in Kenya (see Chapter 7), one of the toughest aspects for developers of new (hardware) technology is gaining the funding to work on their technological ideas.[4] Until now, the priority for local investors in Kenya has been the property market. In this context, a startup founder explained why it is difficult to find local funding:

> It's difficult to get angel investors because the property market returns fifteen percent and it's quite a low risk. So, no one is ever going to invest in higher risk and lower return. (Interview, April 2017)

As a result, most of the funds for Kenyan tech startups come from internationally-owned firms and organizations that specialize in investing in technological innovations (Njugunah 2016: n.p.). Thus, the tech scene in Nairobi is characterized by high numbers of international investors, such as private companies, venture capitalist firms, business angels, philanthropic foundations, and development agencies (Hain and Jurowetzki 2018).

4 Tech entrepreneurs often bemoan the missing support from the Kenyan government (see Chapter 7). For an elaboration on how policymaking processes during President Mwai Kibaki's administration fostered (ICT) innovation in Kenya, see Ndemo (2015).

Interestingly, the manifold actors who invest in technology development in Kenya are united in prioritizing technological projects that foster social impact. I gained this insight through analyzing investor statements, hackathons, interviews with tech developers, and scientific data from other scholars. The key moment in researching the intention of investors in Kenya was a pitch competition in Nairobi in 2015. During the competition, I sat in the audience while my Kenyan research partner, who is a mechanical engineer, sat on the jury. Other than her, everyone else on the jury was German, representing three companies, the embassy, and three foundations. Looking at the jury, the asymmetry in terms of who grants funds seemed clear. Along with an entertaining support program with salsa dance shows, food, and drinks, five projects were pitched. The prizes (German language courses and monetary prizes of between five hundred and two thousand euros, which were only allowed to be used for the particular award-winning ideas) were not revealed until the winners were announced at the award show; thus, entrants had no idea what they might win. Through my research partner, I had access to the evaluation forms and the guidelines for the jury. Looking over the jury's scoring sheet and seeing their guidelines for judging, it seemed notable to me that, out of a total of twenty points that could be given to rate each project, ten were assigned to the criteria "Originality of the innovation and demonstrated creativeness" and "Impact of the innovation". The other 50% of the scores were divided between "Practicality/viability of [the project's] application", "Market opportunity", and "Applicability", and seemed to be secondary criteria. This means, according to the guidelines, questions about the uniqueness of an idea and the possibility of a "fundamental change in processes on the well-being of the community" were considered more significant than questions of competitive advantage, the clear identification of target consumers, and the sustainability of the project (Research Diary, November 5, 2015). Therefore, the key moment of that pitch competition was the insight that the social impact of a technology is more important in the decision of whether or not to fund an idea than mere for-profit business logic.

The fact that (charitable) donors, such as foundations or development agencies, presuppose a social impact of a new technology is obvious. They have to legitimate their financial support in business spheres with doing something 'good'. Thus, their investment in startups and innovative workplaces follow postcolonial trajectories of "conventional development regimes" (Schwittay and Braund 2017: n.p.). The following quote from a foundation that funds a Kenyan makerspace, exemplifies the donors' developmental intentions:

> We are confident that [the makerspace] will transform the environment for invention in East Africa. It will provide a much-needed space for inventors to talk, build, test, and ultimately take their ideas to market. We anticipate that inventions born at [the makerspace] will make people's lives better and bolster local economies for generations to come. (The Lemelson Foundation 2014: n.p.)

The above quote signals the foundation's assumption of social impact through technologies. Another example of donor-driven investment in African tech scenes is UNICEF's Innovation Fund. It invests in technologies that promise to support education, health, and water and sanitation access. UNICEF states that they only fund startups that fit into its:

> global aim of ensuring that every child can survive, thrive and live and learn in a safe, inclusive space, and that innovation is applied to the most pressing problems faced by some of the most vulnerable children and young people. (UNICEF n.d.: n.p.)

Humanitarians' turn to "an optimistic faith in the possibilities of technology with a commitment to the expansion of markets" (Scott-Smith 2016: 2230) emerged around 2009 when the most accredited network of humanitarian organizations, the Active Learning Network for Accountability and Performance (ALNAP), exhibited the first humanitarian innovations (ibid.: 2229). According to Anke Schwittay and Paul Braund (2017: n.p.), development agencies try to follow "Silicon Valley's techno-utopian and libertarian values", but, in reality, fund what they have been used to funding during the last decades of development aid. Their research analyzed the crowdsourcing platform 'Amplify' that was run by the British Department for International Development. Through this platform, innovation challenges were held online "with topics ranging from women's safety in urban areas to improved refugee education to youth empowerment in East Africa and enhanced opportunities for people with disabilities" (ibid.). Similar to the pitches at the Kenyan competition described above, participants who submitted their innovative idea to Amplify had to answer questions about its intended beneficiaries, uniqueness, and overall social impact (ibid.).[5]

5 The development organizations' turn to business sectors has precarious effects. In the 'usual' grant awards of projects and NGOs, there is no investment in sustainable business models. For example, UNICEF requires applying startups to work on open source

However, the tech investment landscape in Kenya is not determined only by charitable organizations; private companies also play a big part. Almost all big technology companies, such as Microsoft, IBM, Google, and Intel, have established regional offices in Kenya (Marchant 2015: 8). Interestingly, the private investors also focus on technology that promises to have a social impact. For example, Benjamin A.J. Pearson and Seyram Avle (2016: 1) describe the rhetoric of Google and Facebook as "aid language" when discussing the companies' investment in the Global South. These companies draw "from human rights-based and international development narratives that emphasize global imbalances and position the global south as recipients of the north's largesse and expertise". Microsoft, as another example, explains its investment in African countries with the company's overall "mission to empower every person and organisation on the planet to achieve more" (Microsoft 2019: n.p.). Its most prestigious investment in Africa are two engineering centers in Nairobi and Lagos, called *Africa Development Centres* (ADCs). In Microsoft's statements about these, the humanitarian visions of corporate social responsibility (CSR) strategies fuse with the company's explicit intention to broaden their product market. Microsoft executive vice president Phil Spencer said:

> The ADC will be unlike any other existing investment on the continent. It will help us better listen to our customers, develop locally and scale for global impact. Beyond that, it's an opportunity to engage further with partners, academia, governments and developers – driving impact in sectors important to the continent, such as FinTech, AgriTech and OffGrid energy. (ibid.)

The global trend of corporate social responsibility is only a partial answer to the phenomenon of profit-oriented tech companies that focus on social entrepreneurship in Kenya, claims Marchant (2015: 11). She studied the assimilation of visions from private companies and development agencies when legitimatizing investments in technological ideas from Kenya. Marchant argues that besides CSR strategies, "the current pervasiveness of interest in technological innovation among development practitioners makes it difficult for the technological innovation sector to disassociate itself from such development

---

technologies (UNICEF Innovation Fund 2021: n.p.). The organization does not mention the fact that open source technologies rarely result in profits (ibid.) and thus, a company that is independent of grants.

objectives" (ibid.: 10). Thus, according to her, multinational companies have to refer to social impact in the Kenyan innovation context because the country has been dominated by development agencies and NGOs for decades (see below).

Private sector investment in Kenya also includes the usual investors in high-risk technology projects, namely venture capitalists (VCs), accelerator-linked investors, and business angels. Again, these actors are mainly non-Kenyan. This means that tech entrepreneurs rarely gain local early-stage funding because Kenya "lacks the thriving local angel community apparent in Nigeria" (Disrupt Africa 2021: 20). Instead, the most active investor in Africa is *Kepple Africa Ventures*, a Japanese VC firm (Disrupt Africa 2022b: 37). The Kepple Group initiated the Kepple Africa Ventures program to connect startups from Japan and Africa (Kepple Africa Ventures 2020: n.p.) in order to 'create new industries' (Kepple 2018: n.p.). Although most of the VCs, accelerators, and angels do not describe themselves as philanthrocapitalists, the sectors and startups that they invest in, nevertheless, speak of prioritizing social entrepreneurship. As such, the energy and agri-tech sectors raised the most funds in Kenya, whereas fintech received much less than in other countries in Africa (Disrupt Africa 2022b: 36).[6]

Postcolonial Genealogy of Technologies for Social Impact

Astonishment is often expressed about the fact that private investors and charitable organizations follow the same aims in Kenya's tech scene. Tom Scott-Smith (2016) illustrates how Californian ideology from the Silicon Valley merges with humanitarian approaches conducted in the Global South. He states that 'humanitarian innovation':

> has the same emphasis on liberation, freeing people from suffering and aid from top-down control. It places the same value on entrepreneurship, seeking to liberate the productive citizens of refugee camps from the dependency of aid. But most crucially it celebrates novelty. In the world of humanitarian innovation, effective aid comes through new markets and new technologies. … Simultaneously, however, the innovation movement seeks technol-

6 According to DisruptAfrica's funding report, in 2020, "the energy sector [gained] US$41 million (21.4 per cent of Kenya's total), and agri-tech US$35.7 million (18.7 per cent of the total). The remaining funds were split between the logistics space (US$27.3 million, 14.3 per cent), e-commerce (US$23.7 million, 12.4 per cent), and fintech (US$16.2 million, 8.5 per cent)" (Disrupt Africa 2021: 19).

> ogy with an emancipatory force: technology as a more efficient and effective way to realise human rights and basic needs; … technology as an opportunity for social and political transformation. (ibid.: 2233)

Although Scott-Smith emphasizes the extraordinariness of different funders who follow the same goal of social impact, the entanglement of technology (and entrepreneurship) with development agendas is not a new phenomenon. On the contrary, the Enlightenment belief that technology and knowledge production are the drivers of societal progress has been enacted in Kenya since the first colonial conquests. Generalized, we can say that from the 18th century until the 1970s, colonial powers saw technologies as something that had to be transferred to other countries – first, in order to 'civilize' the inhabitants and later, to serve the humanitarian goal of ending poverty in former colonies (Cherlet 2014: 777ff.). Around the 1970s, a shift happened in development discourses when a group of scholars criticized the UN for its narrow focus on achieving economic growth by producing and transferring science and technology. Instead, 'capacity building' was claimed to be a better approach because it would empower people to build their 'own' economies (ibid.: 782; Scott-Smith 2016: 2234). However, the concept of capacity building did not flatten the hierarchies between donors and beneficiary countries because it is still based on learning something that is already known by people in the West (Cherlet 2014: 789 referring to Wilson 2007). Throughout history, technology has served and continues to serve different aims in (post)colonial development agendas: "for civilizing the 'inferior races,' as the engine of economic development, for poverty alleviation, and for empowerment" (Cherlet 2014: 789). As such, technology still serves as a tech-deterministic umbrella for the manifold expectations of development in Kenya (see Brown et al. 2003: 4).

Entrepreneurship was only considered as a development tool some decades later than technology, namely, after the Second World War when colonizers allowed colonies to aim for economic growth. Since then, the global shift to neoliberalism resulted in numerous target groups in Kenya being trained as entrepreneurs, to be empowered risk-takers who are able to help themselves within capitalism (see Chapter 2). In light of Silicon Valley's rise and the praise of tech entrepreneurship, actors such as philanthropic venture capitalists argue that businesses are able to fulfill basic needs without the state (Irani 2019: 8f.). They see the state as "inefficient, old-fashioned and a source of dependence. The private sector, in contrast, is seen as progressive and creative" (Scott-Smith 2016: 2237). This means that private companies and

investors became 'ethical actors' that aim to solve societal challenges, such as poverty, through their investment and business advice (Dolan and Rajak 2016: 5). The inclusion of 'Bottom of the Pyramid' markets (Prahalad 2006) and fostering 'social entrepreneurship' (Dees 1998) are two examples of the business approaches in development agendas.

It would be insightful to explore the genealogy of technological social impact (in the Global South) in depth, but the brief historical overview provided here has already demonstrated that technology and entrepreneurship have long been colonial tools for alleged development. Thus, the entanglement of technology and entrepreneurship with social impact aims is nothing new for formerly colonized countries. What *is* a relatively new phenomenon is the range of international private companies and entrepreneurs who promote technology to improve lives in countries of the Global South. Despite the new actors in development agendas, support and investment in technology development in African countries is still shaped by postcolonial power asymmetries. The private sector's influence is still "paternalistic" because the funders believe that "business, market and financial knowledge … are somewhat universally applicable to [sic] no matter what context or problem, be it HIV or water supply" (Tristl 2020: 56). Due to the dominant presence of investors from the Global North, the following section shows that Kenyan startups (have to) adapt their technological ideas and marketing to their funders' expectations of a valuable idea, although they often have different understandings of impact, technology, and business models.

6.3 Negotiating Investment's Postcolonial Power Asymmetries

Between 2015 and 2022, Kenya's startups raised a total of nearly US$ 1.3 billion from the private sector (the second-highest amount of investment in Africa after Nigeria), as well as doubling their annual investment volume from 2021 to 2022 (Disrupt Africa 2022a: 15). Although Kenya has fewer startups than Nigeria, Egypt, and South Africa, the 2020 investment in Kenyan startups made up 27.3% of the total funding in Africa and was thus the highest investment sum ever achieved by tech companies of a single African country (ibid. 2021: 18). Compared to the region, Kenya receives a large amount of investment; yet it is highly contested as the money mainly goes to a few high-paid startups (ibid. 2022a: 27).

Therefore, marketing is a valuable practice. Its storytelling makes a technology and its envisioned impact charismatic and convincing enough to gain the interest of investors. As such, marketing always hovers between the ambitions of tech developers and those of their potential investors. To negotiate the latter, technology developers in Nairobi research the purposes that investors are willing to give money to. Thus, they get involved in pitching events and other situations where they encounter potential funders, for example, at visitor tours, hackathons, or bilateral investment negotiations. In this respect, an interviewee recalled a conversation with a friend about his experience of trying to gain money from investors:

> A friend of mine was raising funds … and I could hear him making a lot of skype calls with potential investors. He flew out to meet them face to face and did the whole pitching thing. So, I asked him about his experience and he told me 'You see, eventually you have to package your story in the way the investors see things. So, when you start out, you usually package [your idea] the way you see things. … So, over and over again, based on feedback and networking, you reach a point when you can actually show [your idea] the way these guys can understand. And then, they give you the money. … [Their view] is not totally different [from my view]. But you have to tweak it … to show it to these guys'. (Interview, technology journalist, April 2017)

The fact that this tech entrepreneur had to fly out to meet his potential investors points to the predominance of international funders in Kenya. Furthermore, the depicted process of convincing investors of a technological idea shows that knowledge of the investors' expectations and mindsets is crucial. According to another interviewee, it is important that investors "understand what you are saying" when talking about a solution to help people; for example, in the Kibera 'slums' (the largest informalized settlement in Nairobi) because "the investor wants to understand where his money is going" (Interview, mechanical engineer, April 2017). As such, marketing a technological idea means 'making the investors understand' and 'packaging' the story according to their worldviews. In this vein, Garud et al. (2014: 1483) emphasize the importance of enabling investors to "interpret a story from their own vantage points" in order to gain legitimacy and attract investment.

When asking Kenyan startups how they approach the mainly European and US investors, all of them stated that they have to tell stories that fit into the investors' unanimous goal to finance technologies that promise to transform

Kenya. Referring to the funders' investment motivations, an interviewee recounted his experiences:

> The kind of foundations which fund hardware development, they see very clearly what they want done. They have clear conditions like 'this is what we are looking at, if you fulfill this, we are going to give you funding'. Of course, for any development agency, social impact is key. They wouldn't just fund a technology thing. (Interview, mechanical engineer, November 2015)

As already depicted above, the expectations of funders as well as private investors focus mainly on the social impact of new technologies. This persistence resembles "strings" that are attached to investment, according to a leading Kenyan tech expert:

> A lot of the money we've seen, either in development projects, private companies' investment, VC, angel investing has been very Americentric. When it comes with Americentric values, it comes with an Americentric thinking. … American money just wants to know how you are going to change the world. … So, it's all about whatever centric values this money is being attached to. There is no money that doesn't have strings attached. (Interview, November 2015)

The strings, such as the expectation that the technology will "change the world", played out by investors determine (the marketing of) technological ideas from Kenya. During pitches and guided tours, in newsletters, and other reports, technology developers have to present their social impact in the form of numbers and stories. In this respect, a makerspace employee stated that once a startup has gained money, it has to constantly report to the funders: "They want to know, they want to be sure, they want you to write a lot of literature about your projects and all that. So they are quite conditional" (Interview, November 2015).

To understand exactly how technology developers have to present their social impact, I analyzed the internal 'Monitoring and Evaluation Framework' of the makerspace where I conducted my research. Looking at what the Nairobian makerspace measures makes it clear that figures showing a quantitative societal output are important in "facilitating the timely and accurate reporting of Gearbox's status to our backers, and holding Gearbox to account for its projected output" (Gearbox 2016: 5). Measurable results such as, amongst others,

the "number of new prototypes developed" (ibid.: 6), "number of inventors actively involved in the community" (ibid.), "number of inventors trained in global standards of design, fabrication, business, and manufacturing" (ibid.), and "number and reach of knowledge sharing tools and platforms created" (ibid.: 8) are gathered to serve as an evaluation of and accountability for the workplace's actions. Numbers also seem important to the tech hub iHub, as it enumerates the numbers of people who work(ed) with or are interested in the tech hub in their 'About Us' section of its website:

> 100+ startups can trace their roots to the iHub. 1000+ individuals have at some point worked with us. Our mailing lists and events reach 10000+ people regionally, and our social media outreach has exceeded 200k followers globally. (iHub 2017)

The affinity with "big numbers" (Interview, public relations manager, March 2017) was also demonstrated by visitor guides when they described what content their tours should include (see Chapter 4).

However, numbers are only one part of the process of gaining legitimacy. For the makerspace's evaluation, its statistician compiled the space's quantitative impact figures into Excel spreadsheets as well as creating a spreadsheet called 'Qualitative Stories' so that the published newsletter stories (see Chapter 5) also became a part of the evaluation (Research Diary, June 28, 2016). The equal importance of quantitative and qualitative data for evaluation fits with Zenia Kish and Madeleine Fairbairn's (2018) analysis that impact investors "measure seeming intangibles such as social impact" by telling stories about the "compassionate dedication to pulling people out of poverty" (ibid.: 578).[7]

The tech scenes in Kenya and South Africa are aware of the fact that well-narrated stories are key "[f]or an [tech] ecosystem to thrive" (Pollio 2020: 2723; 2725). Although my research partners dedicated much time to storytelling practices, they perceived the expectation of stories about social-impact technologies as unfair.[8] In this manner, a startup founder criticized investors

7 Kish and Fairbairn (2018) studied impact investors who invest in farming projects in Ghana.

8 See Marlen de la Chaux and Angela Okune (2017) for a broader assessment of contradictory views between technology entrepreneurs, innovation hub staff, and investors about the availability of capital, the constitution of business skills, and viable technology markets.

in Kenya as "impact investors" who treat Kenyan startups as possible success stories in technological impact, but not as potentially self-reliant small businesses:

> They want nice stories and photographs. Because of that it's not good enough to have a sustainable business that employs people, and you make some money and you are not reliant on grants. That's my definition of impact, but for an impact investor, they want you to save the world and reduce carbon emissions and increase access to energy. So, the bar is actually higher for companies to get investment here than it is in Silicon Valley. (Interview, April 2017)[9]

Technology developers in Nairobi do not feel that they are taken seriously by international investors because a developer is not 'allowed' (financed) to build technology without an externally defined social impact. The "genuine … care about having an 'impact'" that many Kenyan entrepreneurs have cannot be seen because they are not able to define impact by themselves (Marchant 2018: 92). In that vein, Kish and Fairbairn (2018: 584) generalize that "impact investor ethics center the value systems of the investors themselves, with little (if any) discernible input from broader communities involved or impacted by their work".

The investors' conditionality and so-called strings of a pre-defined impact were highly problematized by almost all the technology developers I talked to. However, only a few of them were able to openly criticize the prevalent tech-deterministic expectations. The founder of a hardware company explained their strategy to "push back":

> Yeah, our business is helping access energy. It's potentially helping to reduce a lot of emissions, potentially helping people with health problems, but we never sort of lead with the impact. We look more at treating our customers like customers first. Rather than cases that we need to help. … We do a push back when someone says "I want you to measure how long someone saved

9 Schwittay (2014: 37) draws on Jamie Cross (2013) to argue that there is also an asymmetry in technological endeavors with social impact with regard to their origin: most "technological solutions to the Global South's problems" are still developed in the Global North because "indigenous … creators cannot capitalize on the same networks of support and publicity as their Northern counterparts".

> walking for fuel and impact on xyz". Sometimes, we say, "Rather than measuring impact, let's talk about what you, funder, cook with at home. Do you cook with a cooking stove and charcoal? Do you have a solar stove?" "No." (Interview, April 2017)

As well as confronting investors with their unequal requirements, another pushback would be to "limit the number of funders that can come and visit someone's home [as] a lot of funders say 'I want to visit a customer'" (ibid.).

Despite criticism and pushbacks, technology developers are still dependent on obtaining funds to pursue their work. Thus, being in the midst of funders' expectations, entrepreneurs have to constantly negotiate their way between their own understandings of impact, technology, and business models, and the obligation to perform stories about societal progress through technology in order to be financed. This means the 'harsh reality of business life' is that the myth that "every good idea can find funding" is not true for African contexts (Junne 2018: 122). Therefore, I argue that the negotiations of technological ideas in the process of finding funds emphasize the postcolonial power asymmetries in investor-developer relations.

Further, the constant negotiation between the startup's own goals and investor expectations shows that marketing is an affective achievement in which technology developers have to adapt to investors' definitions of a valuable technological idea in order to obtain funding. As such, the predominantly Global North investors define who and what is worthy of funding in Kenya, and thus determine the visual representations and narrated stories in marketing. In this vein, the aforementioned startup that tries its best to 'push back' against investors' discriminating imaginations of technology made in Kenya had to conclude:

> We try our best to push back as much as possible. But we also have to be realistic sometimes – that if there is no other funding and there is a certain narrative required, we do grit our teeth. (Interview, April 2017)

Another interviewee agreed, stating that there is nothing else for it but to use "different languages" (Interview, tech expert, November 2015), meaning to market one's technological idea according to what the potential funders would like to hear – even if that means promising to change the world in a tech-deterministic way. Moreover, the funders' expectations are not only tech-deterministic, but draw on hegemonic humanitarian and colonial imaginaries

(see Chapter 3). Thus, an interlocutor admitted that handling the worldviews of funders:

> calls for patience sometimes, because you are going to deal with a lot of Eurocentric perspectives, you are going to deal with people who are still navigating the idea of Africa, the poor Africa, the lacking Africa, this Africa not rising for all. (Interview, tech expert, November 2015)

The fact that an investment is more likely when the terminology is familiar to the investors who are, however, unfamiliar with Kenyan contexts, prompts technology developers to use discursive resources of "ethnicity" (Zanoni et al. 2017) and "geographically inflected characteristics" (Pike 2009) to make their technological idea 'charismatic' and thus, convincing (Ames 2015). In this regard, marketing stories 'from Africa, for Africa' and other publicly distributed stories about technology made in Kenya homogenize and essentialize identities and places. Performing ethnicity and geographic stereotypes means the "self-exoticization" (Zanoni et al. 2017: 342) of African contexts and people and thus, the reproduction of colonial imaginations about a rural and poor place. As such, ethnicity and putative cultural characteristics are not used as:

> an innate or true 'essence' of a social group but rather [as] a discursive resource in individual creatives' identity work, that is, their presentation of who they are, wish to be, used to be, fear to be, are thought to be, and so on. (ibid.: 335)

Sometimes however, the adaptation to the investors' mindsets and expectations is not enough to convince; *race* seems to be a category that is decisive in Kenya's investment landscape. Journalists, as well as a report on tech funding in Africa, identify a racial bias in investment decisions: in 2020, the biggest investments went to startups with white expat founders or CEOs (Disrupt Africa 2021: 20). The reasons why this racial bias especially exists in Kenya are yet to be researched. Overall, the (limited) negotiations between investors and developers make clear that these relationships are not only financial, but are also permeated by postcolonial power asymmetries.

The Conservatism of Performing Poverty

The limited possibilities of resistance to investors' expectations causes technology developers to market themselves, their technological ideas, and their potential users as how 'they are thought to be' (Zanoni et al. 2017: 335). I draw on theoretical approaches to socio-material performativity of marketing (Simakova 2013; Woolgar 2004) to argue that the negotiations between investors and tech developers lead to the reiterative configuration of technological innovations, their users, and their contexts according to the investors' exoticizing and discriminating expectations of tech from Kenya. In this vein, Woolgar states that marketing practices include not only the "careful packaging" of ideas "in light of the performed expectations of their imagined audience" (2004: 452), but also the constitution of "social relations and identities" (ibid.: 454). As such, marketing tools such as media images are not neutral objects, but powerful processes in circulation (Rosati 2007: 1000).

I claim that the essentialized narrations of ethnicity and origin within marketing stories about technology 'Made in Africa, for Africa' and the investment flows in primarily social entrepreneurship conservatively *perform poverty*. Technology developers align with both national and international development agendas because they then have a higher chance of gaining funding. As such, colonial imaginations and decades of development agendas constitute technologies with a positive social impact as the norm. The investment focus on impact technologies presupposes that only social problems exist, without considering other possibilities, such as investing in technology for industrial processes. Thus, marketing not only performs technologies in a certain way, but also their respective contexts. Nairobi's marketing stories constitute a homogenized rural and impoverished 'African' context, and essentialize users as in need of technology developers and technological solutions. As such, the *performance of poverty* makes marketing stories economic by reproducing investors' expectations of 'African' technology solving long-endured problems of customers living in rural Kenya.

The marketing of promissory technologies that solve poverty has two effects: first, the depoliticization of structural problems; and, second, the creation of conservative futures and technology. With regard to the first point, the belief in universal technological solutions depoliticizes inequalities such as poverty because it "cancel[s] out politics" (Arora and Romijn 2011: 482). Evgeny Mozorov (2013: n.p.), one of the most vocal critics of Silicon Valley, claims that tech scenes are pervaded by the "ideology of solutionism", which he describes

as "an intellectual pathology that recognizes problems as problems based on just one criterion: whether they are 'solvable' with a nice and clean technological solution". Besides social impact technologies, entrepreneurship in general is also heralded as a "catch-all solution, and … startup culture [a]s the best way to solve any problem" (Marwick 2013: n.p.). As such, treating technology and entrepreneurship as universal tools to solve structural problems obscures the context-specific power asymmetries.[10] This means that the references to "the same set of utopian stories" about disruptive technologies (Ames 2015: 116), turn technology into an apolitical and ahistorical tool that obscures the political aspects of technology production. In the case of Nairobi's tech scene, the performance of poverty neither scrutinizes nor tackles the postcolonial power asymmetries that cause the resource scarcity in rural areas of Kenya, or the colonial trajectories of investment in Kenyan tech.

This depoliticization of structural inequalities leads to the creation of conservative futures and technology. Be it historical facts of a region, imagined stereotypes connected to Kenya, or the essentialized understanding of ethnicity and origin, according to Ames (2015: 118), new technologies convince an audience as soon as "they echo existing stereotypes, confirm the value of existing power relations, and reinforce existing ideologies". Thus, through branding a technology by reinforcing the imaginations and circumstances to which investors are accustomed, the technology becomes convincingly "charismatic" (ibid.) for them, even though the marketing might reinforce discriminating and oppressive structures. Therefore, Ames claims that technologies are "ideologically conservative: even as they promise revolution, they repeat the charisma of past technologies and ultimately reinforce the status quo" (ibid.: 115).[11] Through the performance of poverty, the hegemonic expectations and Western definitions of how technology, innovative work, and 'better' futures should look in African contexts are reinforced. Depoliticized

10 Further, various scholars accuse international investors of using poverty as a business opportunity rather than aiming to solve structural inequality through technological fixes (see Arora and Romijn 2011; Elyachar 2012; Fressoli et al. 2014; Schwittay 2011).

11 The conservatism of new technology would be no surprise to Bruno Latour (2009: 361) who claims that *design* stands opposite to revolution and modernization. In his opinion, (re)designing is a meticulous practice of transforming something according to requested requirements – for example, becoming more sustainable, commercial, or user-friendly (ibid.: 359ff.). Due to the elaborateness and relativity of design – as it always draws on something existing – Latour understands design as the antidote to radical new beginnings.

expectations of future technologies therefore have no revolutionary potential, but rather conservatively reproduce the performance of poverty to which the Global North is accustomed.[12]

6.4 Conclusion: Emancipatory Moments within the Capitalization of Poverty

The depicted two-sidedness of marketing stories illustrates the crux of assessing technocapitalist technology development. Kenyan technology developers and international scholars alike concern themselves with the question of whether the current innovation paradigm represents a decolonial chance for countries in the Global South or if it is a further enclosure of emancipatory potential in capitalism.

The proponents of tech development's emancipatory potential argue that the (participatory) making of technology represents an anti-capitalist move, which empowers people "as active participants in the decision-making process of technological change" (Fressoli et al. 2014: 59; Grimme et al. 2014; Kera 2012; Maxigas 2014; Smith et al. 2013). This applies in particular to makers in the Global South who were (or still are) excluded from economies of technology development. However, Fressoli et al. (2014) differentiate between emancipatory Latin American movements of tech development and the Indian neoliberal concept of the 'Bottom of the Pyramid', claiming that ideological differences exist between movements, startups, and organizations that develop technology for social impact. While the Indian concept "aim[s] to empower people as entrepreneurs and consumers of technology" (ibid.: 59), Fressoli et al. are convinced that technology development can have emancipatory effects. In this manner, Scott-Smith (2016: 2232) claims that humanitarian organizations who turned to business logics and innovation still resist "neoliberalism's inexorable spread". He argues that these organizations only selectively embrace the private sector, continuing to enact a different approach from companies and the state (ibid.: 2234). However, he worries that "autonomous humanitarianism is increasingly under threat" due to the tech-deterministic belief in technologies and capitalist markets as the only solutions to societal problems (ibid.).

12 Due to the still existing colonial imaginations of Africa, Detlef Müller-Mahn states that imaginations of the future of Africa "can only envision positive futures as an antithesis to the perceived present deficiencies and backwardness" (2020: 157).

Unlike these mainly optimistic assessments, criticism of the revolutionary promises of technology development is widespread. For example, Saurabh Arora and Henny Romijn (2011: 482f.) subsume both approaches – targeting poor people, the so-called bottom of the pyramid, as potential customers, and co-creating innovations with marginalized communities – under the shift toward neoliberalism that lets corporate interests and development agendas converge. Lilly Irani (2019: 2) contrasts the entrepreneurial work of tech development with the "slow, threatening work of building social movements". She criticizes social entrepreneurship for making political endeavors compliant with market values (ibid.). The claim that social impact technology is not revolutionary but reformist – if at all – can also be found in Stefan Ouma's (2020: n.p.) analysis of the concept 'Africapitalism'. Africapitalists aim at making capitalism inclusive by serving a specific community while making a profit (ibid.). As empirically depicted above, the Africapitalist tech developers' desire for social impact fits into the current paradigm of philanthrocapitalism. At the same time, however, they wish for a continent that is independent of Western dominance, for example, through the contextualized design of technology made in Kenya. Ouma argues that 'Africapitalism' is a de-politicized version of Pan-Africanism and, as such, fails to think "*through* capitalism *beyond* capitalism" (ibid.). Further, he criticizes the fact that "Africapitalists have no problem with the foreignness of capitalism" (ibid.) and claims that they therefore do not act in decolonial terms.

For a long time, it seemed to me that I had to choose a position – either techno-optimism or a critical perspective on capitalism – in order to analyze technology entrepreneurship as a development tool. However, my empirical analyses show that (the marketing of) technology developed in Nairobi is neither exclusively oppressive nor emancipatory, but both. Technology development in Kenya does not represent a revolutionary overcoming of capitalism and its inherent structural problems. Therefore, I would agree with Ouma (ibid.) that the Africanization of technology development does not fulfill decolonization as long as it remains embedded in capitalist structures. Nevertheless, researching the marketing practices of Kenyan technology developers reveals that they struggle emotionally with accepting international investment and the strings attached to it. The emotional ambivalence in storytelling practices becomes evident through the rapid change between and/or simultaneity of contrary feelings. For example, a common mix of feelings is anger about postcolonial legacies in the relationships with white visitors and the simultaneous praise of global knowledge exchange and flexible working

conditions. This ambivalence of tech development points to the existence of emancipatory endeavors and feelings, although they are of a momentary and negotiable kind.

With reference to Demirović et al. (2019: 8), I understand emancipation as diverse practices, struggles, activities, and movements. According to them, the term 'emancipation' is indeterminate and open, leaving it to those who seek emancipation to determine what it should consist of. Understanding emancipation as practices that are situated and context-specific, I see Nairobi's tech scene as a place of daily resistances that represent moments of agency and emancipation within the neoliberal making of technology. Colonial (capitalist) continuities that define how to market technological ideas are intertwined with decolonial endeavors to re-script the putatively peripheral positionality of Kenya. This means that the 'Made in Africa, for Africa' marketing reproduces (post)colonial stereotypes through the performance of poverty for international audiences and, at the same time, positions Kenya as a place that builds high-tech solutions for global markets. In this context, Zanoni et al. (2017) show that the commercialization of an exoticized ethnic identity creates legitimacy for creative workers to speak publicly and, thus, ultimately "re-signify the discourses constituting them in non-subordinate terms" (ibid.: 348). Thus, technology developers appropriate the discriminating narratives and expectations of international investors, visitors, and observers to enact their decolonial goal of making their work visible and discursively fight against the (assumed) superiority of knowledge and technology coming from the Global North.[13] With this claim, I resist smoothing the analysis of marketing practices

13 I do not want to omit the fact that some startups changed their marketing stories over the course of my research. Startups that employed exoticizing images and terminology to market their technology in 2017 represented themselves in a different way three years later. Their websites are in unimpressive muted colors and there are no pictures of rural contexts or impoverished users that should be empowered. I can only speculate about the reasons and point out two possibilities: the changed representations could signify a shift in business models, investors, and collaborators, or it could be that the startups have matured enough that they have sufficient customers to sustain themselves so they no longer have to compete for early stage investment from funders. For example, a startup that sold prepaid gas meters to the 'bottom of the pyramid' now operates only in partnership with (transnational) gas distributors. Another startup stuck to its business model of connecting farmers to markets. Instead of presenting their social impact on rural farmers who live 'unconnected' to regional and global markets, the startup now offers a functional website that simply provides their customers with a member login and a trading platform.

by repeating the common criticism of the "imposition of a Western modernity on the Third World" (Arora and Romijn 2011: 497) and of a "neoliberal market dominance" (Schwittay and Braund 2017: n.p.). Instead, manifold resistances, collaborations, and indifferences toward power asymmetries come into focus (Arora and Romijn 2011: 498).

Other scholars also emphasize the seemingly paradoxical interplay of critique and reproduction of oppressive structures in the realms of social entrepreneurship and the making of technology. Stefanie Mauksch, for example, states that social entrepreneurship is a morally complex phenomenon. According to her, it "is neither … [an] ethically neutral technique of improvement …, nor just another phenomenon of expanding neoliberal ideals" (2017: 149). She states that social entrepreneurship resembles both "a fundamentally human process of hope-seeking and a phenomenon of capitalist manipulation" (ibid.). In the few studies of technology entrepreneurship in African contexts, scholars also observe the two-sidedness of aiming at a different positionality in the global sphere of technology production. Seyram Avle and Silvia Lindtner (2016) found that the people they worked with in Accra (and Shenzhen):

> challenged the notion that the west was the supposed center of contemporary design and innovation, while they also productively leveraged the discourse on innovation at the periphery for their entrepreneurial practice. (ibid.: 2234)

For instance, Kenyan managers of outsourcing firms strategically use descriptions of a periphery that is either digitally unconnected or that is finally connected and no different from the rest of the world (Graham 2015). Mark Graham describes these "strategic spatial essentialisms" (ibid.: 880) about Kenya's connectivity as drivers of money flows because they affect the imaginations about an economically marginal country (ibid.). In this manner, Andrea Pollio (2020) emphasizes that in the case of Cape Town's tech scene, manifold rationalities agglomerate, presenting lucrative markets in Africa while searching for solutions to structural inequality (ibid.: 2718).

Overall, my analysis of the marketing stories of technology developed in Kenya broadens our view on the tension between agency and oppression. I show that the performative work of storytelling is emotionally strenuous because it negotiates (post)colonial representations and positionalities. It is precisely this performativity of marketing that leaves space for emancipatory moments that contest hegemonic assumptions about a supposedly technological

periphery – for example, making local expertise visible or creating images different from an impoverished rural environment.

Furthermore, my analysis above shows that the creation of new technologies and their marketing stories address not only public audiences, but also tech community 'insiders' (see Simakova 2013: 35). As such, the re-scripting of the country's positionality also speaks to Kenyan tech developers as 'insiders' by building a collective identity that strengthens not only their solidarity with each other, but also their 'care for Africa'. As argued above, the majority of social enterprises in Kenya can be seen as attempts to care for their contexts. Due to that, Tegan Bristow (2017: 286) writes that, for Kenyans,

> the use of mobiles as new communications tool [sic] was initially not strongly linked to a globalized media imperialism, but was rather – due to developments like Ushahidi and MPesa – more synonymous with innovation that assisted in solving problems via community access.

Thus, understanding social impact as a heuristic approach to serving a community well widens our perspective, allowing us to see the capitalization of poverty as a tool to build communities and economic networks which are not based on Western understandings of investment and social impact and which are, as such, an emancipatory moment of self-determination in the global power structures of technocapitalism. The fact that the care for local communities is expressed through marketable technologies resonates with Collier et al.'s description of current capitalism; it has become "difficult … to imagine ways of expressing care and concern without fostering markets" (2017: n.p.). They describe social impact technologies as "caring commodities" (ibid.) that, on the one hand, depoliticize structural inequality and therefore prohibit societal change and, on the other hand, are invented to "save lives, restore communities, improve health, even save the world" (ibid.). Consequently, they understand a caring commodity as a "remedial" approach to social change (Schwittay 2014: 41 referring to Latour 2008). I would express it thus: technologies 'made in Africa, for Africa' signify that capitalist logics and decolonial ambitions, economy and politics, work and care are entangled and cannot be separated (see also Chapter 2). The situations in which 'social impact' means more than a nod to funders' expectations give momentary outlooks into the emancipatory potentials of technology.