Storytelling: Affective Promises and Performances about Technology

Do! Make! Innovate! are common imperatives found in stories that encourage people to create innovative solutions. Such stories usually focus on the ease of innovating and the societal rewards that await heroic entrepreneurs if they dare to embark on the journey of technology development. However, what the stories do not include is that tech entrepreneurship is work that, like any other, is a strenuous process with its own challenges. There is nothing about how exhausting it is to attract money and find supporters to implement one's ideas.

The first part of the book's empirical analyses depicts the practices of storytelling that, at first sight, do not appear part of innovation processes, but are crucial for a technology project. Although current technocapitalism promotes science and technology as the ultimate drivers for economic growth and society's well-being, technology developers, governments, and other technology advocates have to tell positive stories about technological solutions to societal problems and global competition in order to convince doubters (Wynne et al. 2007: 24f.). As such, science communication is necessary to gain political support, investment from private companies or development agencies, and to establish a community around a common technological vision (e.g., Brown 2003; Davies and Horst 2016; Dickel and Schrape 2017; Felt and Fochler 2012). Public storytelling, especially in places that hold a peripheral status in Western dominated technocapitalism, represents the main possibility to make oneself heard and seen. Thus, I argue that telling stories about innovative technology development in Kenya is an as equally necessary daily life practice as the actual designing, prototyping, and coding of a technological idea.

Due to the need to publicly promote promising technological futures in order to fuel and finance scientific work, Wynne et al. (2007: 24) state that technology development is embedded in a global economy of technoscientific promises. In Chapter 3, I highlight these promises about societal progress

driven by technologies and argue that the 'master narrative of technoscientific progress' (Davies and Horst 2016: 33) causes technology developers to solely tell stories about social impact and heroic innovators. Chapters 4, 5, and 6 broaden Wynne et al.'s argument by claiming that storytelling about science and technology does not only involve the writing about (too) optimistic technological promises, but also the bodily and material performances of technological endeavors. Technology developers in Nairobi make stories about their country's tech scene touchable, observable, and understandable in order to convince doubters of their work. Consequently, I include bodies, materials, and affects in my analysis of storytelling practices to illustrate that technocapitalism represents an *economy of promises and performances* about technology yet to become.

Defining Ubiquitous Terms: Story and Narrative

Theoretical approaches to stories about technology, science, and innovation mostly have different understandings of the terms *story* and *narrative*, or use these highly contested terms interchangeably (Cameron 2012; Gabriel 2004: 3; Marchant 2018: 40). The science communication scholars to whom I refer use the term *story* to describe mediatized stories of technological visions and *narrative* to describe dominant beliefs and ideologies, such as the master narrative of technoscientific progress. Geographers, however, mainly use *story* to describe a personal account of intimate experiences that counter dominant narratives (Dutta 2016; Marshall 2014; Pratt 2009).[1]

In narratology, the narrowest definition of a story that is agreed on describes a story as having a plot that knits events together (Muir 1928 cited in Czarniawska 1999: 65) in contrast to an enumeration of events such as in a weather forecast or manual. Stories are characterized by the representation of events as certain and definite – the knitting-together of them produces plausibility (Gabriel 2004: 5; Prince in Biwu and Prince 2018: 15). As such, stories are neither fiction nor non-fiction (Ryan 2007: 26); rather, they combine the telling of a meaningful plot with the assertion of representing reality and therefore, "communicate facts as experience" (Gabriel 2004: 6).

1 Storytelling is also a prominent research methodology in geography to write thick and affective stories of research results (Christensen 2012; de Leeuw et al. 2017).

In the context of Nairobi's tech scene, communication scholar Eleanor Marchant (2018) analyzed stories told by Kenyan entrepreneurs. She defines stories as "*individual tales* people tell" and narratives as "the larger, more general, over-arching tales that shape and are shaped by our fundamental cultural and ideological views of the world" (ibid.: 40). For my analysis of the story told about Kenya's tech scene, I also make the differentiation between a story that conveys something specific and a narrative that functions as a broad frame for stories. However, the analyzed story is not a personal story told in informal situations, but a public singularized story about technology development in Nairobi (see Chapter 3).

In terms of *geographies of stories*, I am conceptually interested in Kenya's tech story as neither structural and universal, nor local and particular (Naylor 2008: 271). This geographic approach asks how stories (have to) conform to hegemonic discourses (Price 2010: 207), how small stories are able to create "larger and more general, though still situated, narrative knowledges" (Squire et al. 2013: 13), and how personal stories can be different from each other and at the same time resemble a similar story of structural inequality (Dutta 2016: 2). Thus, I argue that, although Kenya's public tech story is partial, it is at the same time universal because of its references to master narratives that possess a hegemonic status.

Research Lens: Analyzing the Performative Productivity of Kenya's Tech Story

The acknowledgement that storytelling is a daily practice in Kenya's tech scene leads to the awareness that stories are not simply 'lying around', but are "fabricated, circulated, and contradicted" (Czarniawska 2004: 48). Thus, the labor of storytelling – why stories are told, by whom, and under what circumstances – comes to the fore. Understanding storytelling as a productive practice, my research lens on stories and storytelling about tech development in Nairobi is twofold: first, I am interested in the narrative characteristics of stories to analyze the norms and affects that are created through them (see Chapter 3). Second, I highlight that stories are bodily achievements of making particular expectations, affects, and politics present or absent by examining three different storytelling practices – guiding visitors through innovative workplaces, writing media stories, and marketing locally developed technologies (see Chapters 4, 5, and 6). Overall, the following chapters ask about the stories' performa-

tive effects on their protagonists and storytellers, and the storytellers' abilities to change dominant narratives by negotiating between hegemonic norms and personal understandings of entrepreneurship, technology, and social impact.

The Performative Normativity and Affectivity of Stories

The theoretical foundation for the analysis of Kenya's tech stories is Michel Foucault's (1981; 1991) and Judith Butler's (1995) poststructural understanding of discourse and language that strongly influences the performative stance in narrative research. According to Butler (1990), performativity means that categories, norms, and identities are not innate, but enacted or "invented" (2010: 154) through the iteration of speech acts. This means that narratives and stories are productive practices that discipline and normalize things and people through the continuous reproduction of categories and norms (Bublitz 2003: 48, 55). Although continuously iterated discourses powerfully produce and oppress socio-material reality, Butler emphasizes the existing agency within discourses as they are also "open to resignification, redeployment [and] subversive citation from within" (1995: 135). Thus, the benefit of paying attention to storytelling is that stories can be grasped as ambivalent matter – not only as reproductions of oppressive structures, but also as tools to challenge seemingly irrevocable social norms created by hegemonic discourses (Gabriel 2004: 2; Sommer 2007: 68). In either case, stories are productive, as they "constitute realities, shaping the social rather than being determined by it" (Squire et al. 2013: 15).

Also, science communication scholars understand stories about technology as "productive types of communication" (Dickel and Schrape 2017: 54), meaning that stories performatively shape the form that a specific future technology, as well as its innovators, should take. This normativity of stories entails the production and circulation of affects that influence storytellers, protagonists, and audiences. Therefore, it is important not to see science stories as objective portrayals that only tell people about science and technology (Davies and Horst 2016: 228). They are also political, and so it is crucial to analyze the "explicit and implicit norms [that] form the basis of technoscientific discourses and practices" (Weber 2007: 364f.). Thus:

> [t]he challenge for science and communication scholarship is … to notice not just the visions and expectations – what is being promised? – but the norma-

> tivities implied by them. What societies are being imagined? Who is present within them, and who is excluded? (Davies and Horst 2016: 146)

This focus on the performative enactment or 'invention' of norms (Butler 2010: 154) offers insights into the affectivity of stories. Sociologists of expectations state that "the production of a particular narrative order … polices the future behaviour of a whole range of actors" (Brown et al. 2003: 4). For example, stories that perpetuate tech-determinism 'govern' scientists, storytellers, and audiences by distinguishing between visionaries and conservatives, by defining what constitutes societal problems, how these should be solved, and who is able to become an innovator and who not (Felt and Fochler 2012: 4; Irani 2019: 14). However, stories are not only a matter of explicit policing – they also respond to desire and positively connoted emotions such as happiness (Ahmed in Schmitz and Ahmed 2014: 103; McQuillan 2000: 16). Sara Ahmed calls encouraging accounts on how to become happy "subtle affective mechanisms" (Ahmed in Schmitz and Ahmed 2014: 103) because they pretend to advise voluntary actions but still direct, narrow, and homogenize possibilities (ibid.: 104). This means that the affectivity of stories – whether positively or negatively connoted – influences the scope of action. Cultural geographer Patricia L. Price therefore argues that stories are always productive:

> At the very least stories entertain. Beyond that, stories can perform pedagogical, emotional, and taxonomic work. They can instruct in the proper ways of behaving, provide a compelling order to events, serve as an articulated historical repository, elicit strong emotions, forge consensus, sway opinions, provide alternative understandings, and incite to action. (2010: 207)

In the workplace, the affectivity of stories produces communities and (work) identities; they generate commitment and meaning in organizations. Mary E. Boyce (1996: 7) states that as well as stories, other ritualized aspects of work such as events, branding, and insider jokes make up the ideology of an organization (ibid. referring to Dandridge et al. 1980: 77). According to Ames et al. (2015), the foundational story of a technological endeavor, in particular, possesses community-building effects. Such a story is often "ritualistically circulated within the community", producing religious-like "feelings of awe, transcendence, and connection to a greater purpose" (ibid.: 70). This greater purpose could be a shared vision of the future, as Detlef Müller-Mahn (2020: 57) points out. Hence, the re-telling of a visionary story eradicates doubts, builds

and stabilizes identities and relations, and furthers legitimation of decisions, for example in regard to the development of a certain technology (Brown et al. 2003: 4; Dickel and Schrape 2017: 54).

The affectivity and normativity of stories demonstrate that language and representation are never separable from materiality and corporeality (Militz 2017: 25). Thus, research that not only analyzes the narrative characteristics of a science story, but also its affects and materializations is inevitable (Cameron 2012: 581ff.; Czarniawska 2004: 48).

The Embodied Work of Storytelling

Researching the performativity of stories includes analysis of the stories' effects, such as the (re)production and contestation of (collective) identities, places, and futures. However, it is insightful to also examine the embodied practices that bring stories and their effects into being (Czarniawska 2004; Lippert 2014). What work is necessary to produce stories? What "stabilizing work" (Czarniawska 2004: 43) makes particular stories coherent and thus, constitute norms? By researching the practices of storytelling, we can understand the structural context of a story's content, a requirement for investigating the relationship between narratives, power, and agency (Squire et al. 2013: 9; Tamboukou 2013). Asking questions such as why stories are told in a certain manner, why storytellers draw on hegemonic master narratives, or why they silence specific things and circumstances (Steyaert 2007) illuminate how norms are "constructed, perpetuated or subverted" through stories (Gymnich 2002: 62).

Science communication scholars Sarah R. Davies and Maja Horst (2016: 214) take the emotional and bodily parts of storytelling into account, writing that science communication "is a jungle, full of colour and smells and different kinds of beasts and strange things lurking in the shadows". Put simply, they claim that stories are affective achievements. In the same vein, John Law (1994: 155) claims that the socio-material practices of storytelling are strenuous:

> [Storytellers] don't just select between the myriad bits and pieces that happen to be lying around and shake them up together in a bag to form a picture. Neither do they invent such bits and pieces, de novo. Instead, the components of a picture are built up. With difficulty. Often painfully. On the basis of what is already being performed out there.

Researching the work of storytelling therefore reveals the material, embodied, and emotional performances of stories. For this research endeavor, I use Linda McDowell's understanding of work in the service sector in which she describes the bodily and emotional relationships at work. According to her, emotions such as:

> [d]isgust, contempt, shame, humiliation, anger, empathy, surprise, pleasure, enjoyment and excitement may singly or in some combination be part of the provision of a service that includes selling the body in different ways and these emotions may be felt by either or both workers and consumers. (2009: 225)

Workplaces in the manufacturing sector are often depicted as unsocial places of physical labor (e.g., McDowell 2009). In this manner, organization scholars emphasize that quantified information dominates workplaces of knowledge production without leaving much space for narrating (emotional) stories (Gabriel 2004: 70). However, this observation does not correspond to the current entrepreneurialization of manufacturing. I argue that the storytelling practices in the tech sector are similar to those in the service sector in which embodiment and "how bodies connect (or do not)" are the principal themes of work (McDowell 2009: 225). Hackathons, pitching competitions, and co-working spaces in general are places where tech developers bodily perform themselves, their visions, and technologies as revolutionary and heroic. Whether on a stage, at the workbench, or through social media, technology developers constantly present themselves to the public, thereby staying in contact with potential investors and customers. Thus, self-marketing performances, and the social interaction with users, potential investors, and like-minded techies characterize the work of making new technologies.

The Agency of Stories to Script Positionalities

By looking at the labor of producing stories and the stories' effects on their protagonists and storytellers, we see that discourses produce hegemonic norms. However, the iterations of storytelling also create space for a subject's agency to contest these (Bublitz 2003: 60). Feminist scholars in particular, such as Donna Haraway (1991) and J.K. Gibson-Graham (2002), engage with the performative possibility of countering hegemonic narratives by presenting alternative stories. They deconstruct oppressive and discriminating accounts

of economy, gender, and technology and write multiple and often contradictory stories of society in their scholarly practice.[2] As such, scholars who are interested in performativity acknowledge that stories not only represent a certain status quo of people, places, and things, but also affect and materialize them (Cameron 2012: 581, 586). This means that the narrative work of storytelling – if critically applied – can have emancipatory effects of (re)creating meaning (Boyce 1996: 21).[3] As storytelling's performativity affects and creates collectivities, stories are able to counter hegemony and to "build an oppositional politics among marginalized groups" (Cameron 2012: 580). Gibson-Graham (2002: 36) terms this emancipatory potential of stories "resubjectification", meaning the creation and maintenance of alternative – in their case, non-capitalist – institutions, practices, and discourses wherein subjects are enabled to inhabit these alternative spaces.

Butler broadened her focus on language and her "cultural constructivist position" (2010: 153) that she argued for in *Gender Trouble* by acknowledging the performativity of socio-materiality:

> It is not only the explicit speech act that exercises performative power. … [I]t is not simply that a subject performs a speech act; rather, a set of relations and practices are constantly renewed, and agency traverses human and nonhuman domains. (1990: 150)

Humans and materialities have not only performative agency, but also affects. Sunčana Laketa (2018: 182) analyzes "how emotions and affect congeal in space through repetitive practices and [that] … they are involved in the constitution of boundaries between bodies and objects". She combines Butler's theory on

2 Haraway goes one step further than writing stories of multiplicity; she uses fiction to materialize new realities. For example, her writings on cyborgs who transgress boundaries by being "in partial connection with others, in communication with all of our parts" counters the hegemonic "dualisms of mind and body, animal and machine, idealism and materialism in the social practices" (1991: 154). According to her, emancipatory potential lies exactly in the storytelling about "very fruitful couplings" (150).

3 Mary E. Boyce emphasizes the two-sidedness of storytelling (in organizations); stories and storytelling can "be socially controlling or participatory and emancipatory" (1996: 21). Thus, they can be used to either "describe and sustain the current power structure, or to nurture … liberation and to develop new meaning of work and personhood by individuals and groups" (11).

performativity with Ahmed's theorizations on affects to stress that the deconstruction of boundaries is possible due to variations in affective repetitions (ibid.: 192f.). In regard to 'place', Mike Crang (2004: 76) uses the concept of "scripting places" to claim that images, texts, and practices are able to create places and "also rework the actual histories and geographies of places".

Based on the depicted understanding of performativity, I empirically show that the storytelling about Kenya's tech scene signifies an attempt to re-script the country's positionality in technocapitalism. Narrative promises and embodied performances about Kenyan startups and technologies create international awareness of technology development in Nairobi. As such, public relations employees, visitor guides, and technology developers tell stories to eradicate doubts about Nairobi being a place for tech development.[4] Hence, the writing of newsletters, the guiding of visitors, and the marketing of technologies function to gather supporters of technological ideas – be they communities of local tech developers, the Kenyan government, or (the mainly international) investors.

Overview: The Storytelling Chapters

In Chapter 3, I analyze the singularized founding story of Kenya's tech scene by drawing on various sources that all recount revolutionary but smooth transformations, heroism, and amazement at technological innovation made in Kenya. Thus, the chapter shows which narrative characteristics tell a partial story in a generalized way, and which normative and affective effects the totalizing narration has. I highlight the partiality of the story about Kenyan tech development by dissecting the story's content and structure. My analysis determines the presences of overarching narratives, for example, the belief in technologies as drivers of national progress, and the absences of complicating daily life and contexts. However, the research into absences and presences does not aim to discover if the story is 'true' or not, but rather to expose what is silenced while claiming to represent reality (Gabriel 2004: 6). In addition to the narrative content analysis, I draw on contextualizing empirical data from interviews, conversations, and my own experiences to examine how Nairobi's tech story is

4 In the case of South Africa's tech scene, Andrea Pollio claims that primarily "numbers, figures, lists" (2020: 2717) and "texts, reports, maps, stories and marketing gimmicks" (2727) ontologically produce the Silicon Cape's existence.

productive of affects and norms which influence the agency of the story's protagonists, namely technology developers, tech users, an 'African' environment, and technology itself. In this vein, Kenyan tech developers 'should' work fast, flexibly, and ingeniously and their technological ideas 'should' ease the problems of marginalized (rural) communities. Overall, Chapter 3 argues that the singularization of the story of technology development in Kenya totalizes the tech-deterministic belief in societal transformation through technology and, therefore, makes technology developers and their innovations affectively comply with global norms of technoscientific progress and postcolonial development paradigms that *other* Kenyan technology development.

The normative conviction that technology advances (societal) development also comes up throughout Chapters 4, 5, and 6. However, the focus of these chapters lies on the actual practices of storytelling. I ask what work produces norms, imaginations, and identities, and what effects storytellers desire from – and eventually enact with – their stories. Using the examples of three different storytelling practices – guiding visitors through workplaces, writing media stories, and marketing technologies –, the chapters show that storytellers aim to re-script Kenya's discursive and material peripheral positionality. However, as the stories' promises and performances are embedded in colonial (capitalist) trajectories, they have ambiguous ambitions. On the one hand, stories about technologies, startups, and Kenyan co-working spaces function as discursive resources to counter the stereotype of Africa as a passive and non-technological place. As such, they represent the tech developers' decolonial desire to abolish postcolonial asymmetries by scrutinizing colonial imaginations of Kenya, and by building a caring local community of technologists. On the other hand, the stories told are supposed to center Kenya in the global technology economy and attract investors who predominantly come from the Global North. In this regard, the guiding of visitors is done not only to share knowledge with the local community, but also because affluent visitors embody potential investment. The writing of media stories serves not only as a way to empower Kenyans to become technology developers, but also as a tool to gain legitimacy and accountability for investors. And the marketing of technologies as 'Made in Africa, for Africa' expresses care for contextual challenges and, at the same time, reproduces the investors' essentializing imaginations of a single 'Africa'.

Chapter 4 offers ethnographic insights into the practice of guiding visitors around co-working spaces and shows that the tours function mainly as touristic events for interested people from the Global North. Thus, they turn the technology developers, innovative workplaces, and technologies visited into watch-

able objects. The clash between idealistic aims and discomforting feelings is paradigmatic for all of the storytelling practices; in the case of visitor tours, feelings of anger and irritation while being watched clash with the ideal of sharing knowledge with others.

In Chapter 5, I show that the making of media stories needs affective and collaborative socio-technical care. Storytellers and technical infrastructures – for example, electricity – have to work together in order to distribute stories to a global audience. However, the absence of infrastructures and the lack of 'adequate' stories that fit into the technoscientific and exoticizing norms of how technological innovation in Kenya 'should be' complicate this work. Thus, writing media stories represents invisible care work for media content and a continuous negotiation between narrative norms and the realities of daily life.

Chapter 6 analyzes the marketing practice of branding technology from Nairobi as 'Made in Africa, for Africa'. I explicitly depict the tension between the technology developers' financial needs and their emancipatory visions. Technology developers have to market their projects according to the expectations of the predominantly Global North impact investors. Thus, they use hegemonic essentialized understandings of ethnicity and origin to make their technological ideas convincing although such marketing might reinforce oppressive structures. I claim that this marketing *performs poverty*, and thus constitutes Kenya as a homogenous African place of technology for the rural poor. The chapter empirically shows that tech developers not only reproduce the essentializing imaginations of funders, but also negotiate the obligation to perform stories about societal progress through technology. However, the tech developers' dependence on investment restricts this performative ability to re-script stories and positionalities. They usually have to surrender themselves to the postcolonial power asymmetries in investor-developer relations and, ultimately, follow the investors' choice of which ideas are worth financing and which are not.

I conclude the empirical analyses on storytelling by stating that postcolonial power asymmetries pervade the technocapitalist *economy of promises and performances*. As such, the guiding of visitors, the writing of media stories, and the marketing of technology are emotionally strenuous work practices that affectively and socio-materially negotiate representations and positionalities. Storytelling's performativity has the ambivalent effect of both reproducing colonial imaginations and creating communities that aim for decolonial technology development. I claim that this ambiguity signifies the entanglement of market logics with political endeavors within the current paradigm of post-

colonial technology entrepreneurship in Kenya. Thus, Nairobi's tech scene is a place of daily resistances that represent moments of agency and emancipation within the neoliberal making of technology.