

## 12 THE PLAYPUMP

*Ralph Borland*

In 1989, retired advertising executive Trevor Field took his father-in-law on a visit to an agricultural fair in Pretoria, South Africa. At the fair, he saw a prototype for an invention by water engineer Ronnie Stuiver: a children's roundabout (or, merry-go-round) that drove a borehole water pump. Stuiver had come up with the idea through his work in rural areas of South Africa, where children would appear when he was sinking boreholes and installing water pumps and want to play at helping him with his work.

Field was immediately captured by the idea and bought the patent for it from Stuiver. Stuiver, Field tells us, knew that the system was too expensive in comparison with a standard hand pump to be widely taken up (Architecture for Humanity 2006). But Field had a vision for how to raise money for the pump—he saw “advertising billboards that pumped water” (PlayPumps International 2009). He added an elevated water tank to the design, to capture water from children's play for adults to draw later, and on the water tank he placed billboards, to be rented out to raise money for the installation and maintenance of the system. And so the PlayPump was born (figure 12.1).

During the 1990s, Field established connections with government bodies and corporations in South

Africa to fund and install PlayPumps in rural areas. In 2000, the project started to become internationally known when Field was encouraged by a World Bank representative to enter the project in its Development Marketplace Award, which the PlayPump won. With the exposure from the award, interest in the project accelerated, and in 2006 Field scored a major coup: The Case Foundation, run by America Online (AOL) founder Steve Case and his wife, Jean, wanted to back the PlayPump, and after meeting with Field in South Africa, they established PlayPumps International in the United States to start fund-raising for the project in earnest.

The Cases used their expertise from running AOL to pioneer new forms of online fund-raising that targeted the general public in the United States directly, employing a top Internet strategist “to help it go global and craft an ‘everyman’ approach to raising new dollars” (McMillan 2008). Their new website for the PlayPump used social networking and direct online donations to “unearth a new stream of donor dollars,” creating “a robust hub for fundraising,” which allowed an early campaign for “100 pumps in a 100 days” to raise US\$1.6 million online (McMillan 2008).

PlayPumps International's campaigns rode a wave of public interest in the PlayPump in Europe and the



Figure 12.1

A promotional photograph for the PlayPump, ca. 2000. (Source: [www.playpumps.co.za](http://www.playpumps.co.za))

United States, which was primed by other aid campaigns and increasing press attention to the project. A brand of bottled water, with profits going to the PlayPump, had been launched by the One Foundation a year before PlayPumps International was established, under the slogan “When You Drink One, Africa Drinks Too” (One Water 2009). The One Foundation used celebrity spokespeople and extensive marketing and advertising to draw attention to the PlayPump and had its brand selected as the official bottled water of Live8 and Make Poverty History, high-profile campaigns for aid to the developing world. Global hip-hop star Jay-Z’s “Water for Life” concert tour in 2006 raised US\$250,000 for PlayPumps International (FRONTLINE/World 2005).

A slew of international headlines, articles, and editorials celebrated the PlayPump. Bill Clinton (2006) called the PlayPump a “wonderful innovation” in an article in *Time* magazine, while a *New York Times* (2003) editorial described it as “more efficient, easier to use and cheaper to run than wells with hand pumps.” The *Sunday Times* newspaper in the United Kingdom told the story of Field’s invention under the headline “The Drought-Busting Magic Roundabout” (Lamb 2005). “Why Pumping Water Is Child’s Play” read the headline to a BBC News (2005) article on the PlayPump. “Sometimes it’s the simplest of ideas that can change the world most profoundly” mused *National Geographic* (2008) in its short film about the project.

Probably the most instrumental piece of media in advancing the PlayPump was a short film by PBS’s *FRONTLINE/World*, which was broadcast online and on public television in the United States in 2005. The movie was made by reporter Amy Costello (2005), who accompanied Field to the site of an early PlayPump installation at a school in South Africa. *Front-*

*line* reported “an overwhelming interest from web viewers” to the project over a number of years, from its original screening in 2005, to an update in 2007 in response to the Case Foundation’s adoption of the project, and beyond. Jean Case told Costello that the movie was the first thing she would show potential donors to the project (Costello 2010a).

Shortly after PlayPumps International was established in 2006, the Cases secured a massive donation to the project from a range of public and private institutions, including the Kaiser Foundation, USAID, and the President’s Fund for AIDS Relief (PEPFAR). This donation for US\$16 million, which press photos show being handed over as a giant check by Bill Clinton and Laura Bush, launched a campaign intending to raise a total of US\$60 million, which was meant to fund the installation of four thousand PlayPumps across Africa by 2010. This, they said, would supply water to ten million people (Case Foundation, n.d).

But three years later, in 2009, things didn’t seem to be going very well for the project, and PlayPumps International’s support appeared to falter. Its newly appointed CEO, Gary Edson, published a letter on the company’s website acknowledging problems with the rollout of the campaign and announced that production of PlayPumps would be suspended until these problems were resolved. Reports began to emerge that questioned the PlayPump’s benefits. A few months after Edson’s announcement, journalist Andrew Chambers writing for the *Guardian* newspaper reported criticism of the project among aid agencies (Chambers 2009). He published a letter from the charity WaterAid, which noted that “although aggressively marketed to them,” they did not support the use of PlayPumps as there are “cheaper and more sustainable ways of achieving the same aims without using PlayPumps” (Martin 2009). WaterAid doubted

that children's play would be a reliable source of energy for the pump.

Indeed, Chambers used the PlayPump's own figures for its pumping rate against international standards for minimum water supply to calculate that children would need to "play" for twenty-seven hours a day to supply water to the size of communities the pumps were installed in! Clearly, children's play would not supply sufficient water to their communities. In his article, Chambers referred also to an unreleased UNICEF study from 2007 that was circulating among workers in the water and sanitation sector, which noted poor performance of the pumps, a lack of community consultation, low advertising take-up on the pump's billboards, and delays in maintenance of PlayPumps. The study reported that adults were frequent users of the pump, pushing the roundabout by hand to meet their demand for water. In the same month as Chambers' article, "Owen," a worker with Engineers without Borders (Canada), began blogging about his first-hand observations of PlayPumps in Malawi (Owen 2009). He confirmed seeing adult women regularly turning the roundabout by hand just to draw their own water—the PlayPump's water tank was usually empty—and that the pump appeared to perform less well than ordinary hand pumps.

Amy Costello felt compelled by rumors and reports of the project's poor performance, and her role in promoting it, to revisit the PlayPump story for PBS

in 2010 with the film *Troubled Water* (Costello 2010b). Her new film, accompanied by extensive interviews and documentation on the film's website, revealed high levels of dissatisfaction among communities where PlayPumps were installed, particularly in Mozambique. Adult women had to turn the roundabout by hand because children's play was an insufficient source of water, and it was uncomfortable for adults to use in this way. Costello referred to another unreleased and much more detailed study of the PlayPump commissioned by the Mozambiquan government in 2008 that confirmed the widespread unhappiness of communities with this new technology, especially given that the PlayPump's roundabout usually replaced existing, more efficient hand pumps. A woman in Mozambique told Costello, "From 5 a.m., we are in the fields, working for 6 hours. Then we come to this pump and have to turn it. From this, your arms start to hurt. The old hand pump was much easier" (Costello 2010b).

In 2010, PlayPumps International wound up their support for the project, took down their website, and handed over all remaining PlayPump stock to the organization Water for People (Costello 2010b). They have never fully explained why they dropped their support for the project and would not be interviewed by Costello for *Troubled Water* (Costello 2010b). Field's original company in South Africa still continues in 2013 to produce and promote PlayPumps, but with much diminished international support.

## Audiences and Users

I analyzed the PlayPump as the central case-study of my PhD thesis, *Radical Plumbers and PlayPumps—Objects in Development* (Borland 2011), which I wrote

as a cross-disciplinary study in an engineering department (drawing on my background in fine art) at Trinity College Dublin. I began my examination of

the PlayPump in 2006 and followed it over the intervening years until late 2010, when I submitted my thesis, so I was in a position to witness it at both the height of its popularity and at its demise.

I analyzed the PlayPump as an example of contemporary “design for development,” a field in which small-scale objects are designed to serve basic needs in developing-world environments: to access water and electricity, to generate income, and so on. Some iconic objects from the field include the “windup radio” produced by Freeplay in the 1990s and the One Laptop per Child (OLPC, or “\$100 laptop” as it was originally called). While the idea of designing for developing-world environments and users has been around for some time—particularly since the “appropriate technology” movement of the 1960s—the past few decades have seen increasing attention paid to the reception of these designed objects among audiences in the “first world,”<sup>1</sup> via press articles, aid campaigns, exhibitions, and awards. Design for development projects gather support and funding through increasing their visibility among first-world audiences—by stimulating direct donations or through the sale of products like One Water or by attracting donor bodies to share in this public attention. As Field put it, “we can make a really big organization look fantastically well by being associated with PlayPumps” (London 2007).

The PlayPump is a particularly vivid example of how an object that tells a compelling story to these audiences outside of the developing world might get advanced despite its failure for users on the ground. The enthusiastic reception of the project among journalists, donors, and the general public in the first world was in stark contrast to the dissatisfaction of users of the technology in the developing world. Articles in the press that uncritically repeated the

claims of the producers of the technology, and the popularity of these depictions of the project among the public in Europe and the United States, had a snowballing effect, with more and more bodies wanting to associate themselves with the PlayPump. There was very little avenue for realistic representations of the experiences of users of the PlayPump to travel to these distant audiences supporting the project. Even when first-world visitors traveled to the site of a PlayPump, they still saw more or less what they expected to see—for reasons that will be examined later.

For my thesis, I constructed the diagram shown in figure 12.2 to help depict the relationship between these audiences to and users of the PlayPump, as mediated by the different bodies producing, promoting, and funding the PlayPump. The PlayPump in this diagram is understood as both a discrete, particular object on the ground somewhere (the lower part of the diagram) and as a larger overlying system for funding, maintenance, and image distribution (in the upper part of the diagram).

I imagined the boundary between these two zones, represented by the horizontal dashed line in the diagram, as a type of membrane separating first world and developing world. One way in which this membrane functions is as a “screen.” Looking down from the top of the diagram, audiences see not the failure of the technology on the ground (of which more later) but idealized images of the PlayPump projected there by the producers of and partners to the project—such as the photograph in figure 12.1.

The PlayPump’s promise that children’s play could accomplish essential work was compelling. In photographs and videos of the PlayPump, laughing children were depicted playing on the roundabout, pumping water to the water tank that then gushes

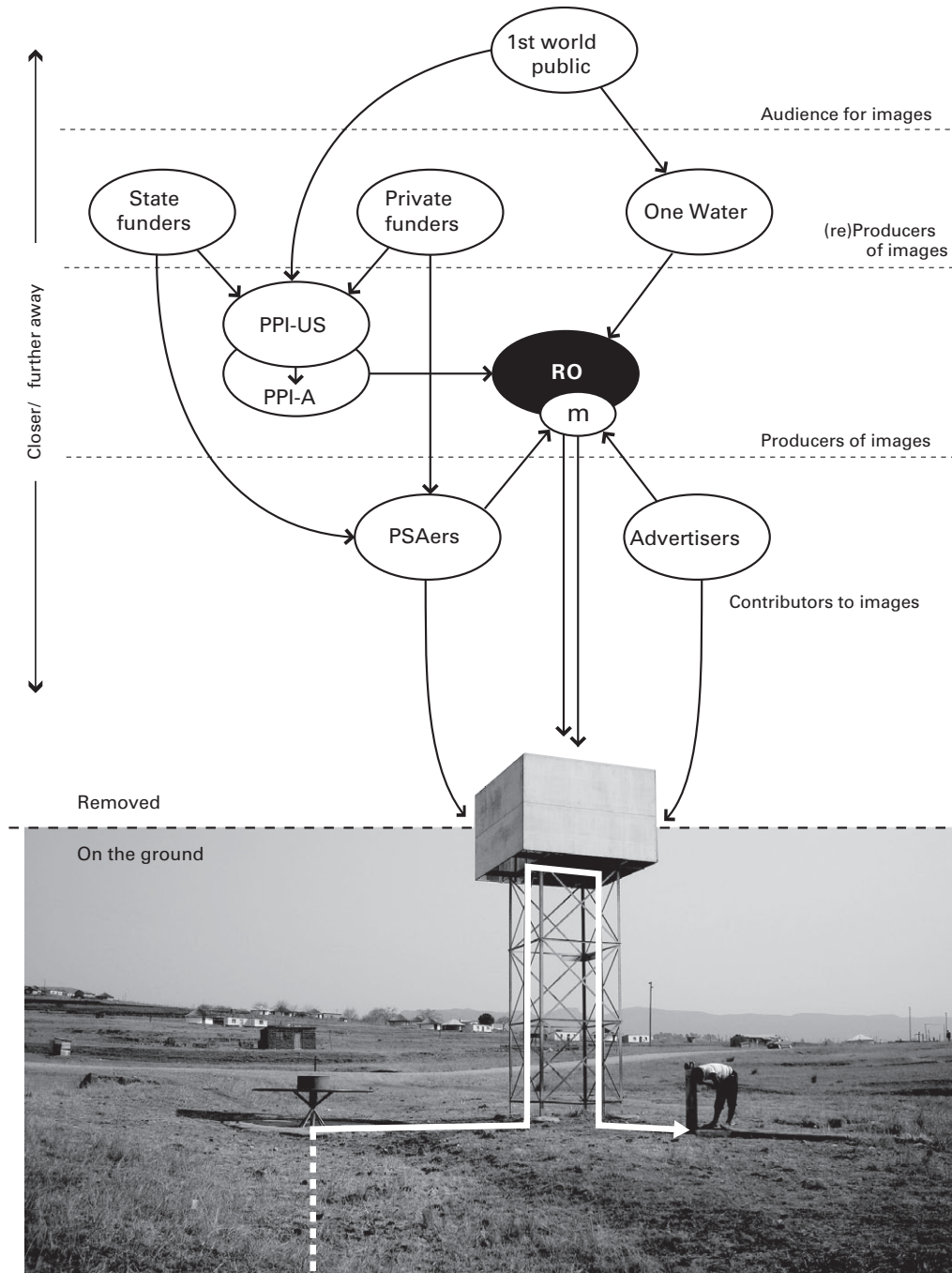


Figure 12.2

A diagram from the author's thesis: The diagram focuses mainly on the systems that support the PlayPump and includes a photograph taken by the author of a PlayPump in KwaZulu Natal, South Africa (ca. 2011). Key: PSAers, public service advertisers; RO, Roundabout Outdoor, original producers of the PlayPump; PPI-US, PlayPumps International (USA); PPI-A, PlayPumps International's African organization; m, maintenance, indicating how billboard rentals were meant to fund the maintenance of the pump.

from the pump's faucet to quench their thirst. As the World Bank described it on its Marketplace Development Award website, "primary school children can now be found laughing, playing, running, and joyfully extracting water from the ground for their entire community" (World Bank 2004). Children's play on the roundabout was sold not just as a substitute for work, but as valuable in itself: the PlayPump's producers described play as "a powerful tool through which young people learn about themselves, gain respect for each other, break down gender stereotypes, and stimulate their bodies and minds. PlayPump systems inspire kids to play, giving joy while

fostering self-confidence and interpersonal skills" (PlayPumps International, n.d.). "This play pump idea is brilliant" wrote one visitor to the website for Costello's first movie on the PlayPump, "Does my heart good to know that basic human problems can still be solved with innovative and creative solutions." Other visitors to the site describe getting "chills" and "goose-bumps" from watching the video; they describe it as a "heartbreaking and uplifting piece all in one." "I LOVE the idea! It is creative, inventive, and kind-hearted. I ADORE IT!" "This is the coolest thing I have ever encountered" (Costello 2005).

## Word Play

In my thesis, I identify some key components of the compelling "narrative image" that was generated by the PlayPump and that was instrumental in gathering support for the project. Using puns and double entendres is common stock for newspaper headlines, and with the PlayPump journalists were presented with images ripe for such word play. There were two particular phrases that were used in association with the PlayPump and that I included in the selection of newspaper headlines in the first part of this chapter: the PlayPump as "child's play" and as the "magic roundabout."

The PlayPump appears to literalize the metaphor of "child's play"; journalists could make use of the phrase both to describe the actual operation of the pump (powered by children's play) and as an idiom: a simple idea that just works. The PlayPump brought to life an existing figure of speech, one which Western audiences are primed for. The idea of "child's play"

is conveyed to audiences through readings about the object, as in newspaper headlines, but is also encoded in the PlayPump itself, via the pump's roundabout—a children's technology.

The roundabout is an iconic piece of playground equipment for Western viewers. Its presence persuades viewers that play, and therefore pleasure, must characterize the user's interaction with the pump. A teacher writes, "I've been sharing the excitement of the Play Pump in my third grade classroom for several years now ... the universal appeal of playground equipment is something they can easily relate to" (Costello 2005). The roundabout has a self-evident logic to it that has made for a near-universal interpretation, from a distance, that the PlayPump works the way it is supposed to. To picture adults pushing the roundabout around by hand as a repetitive chore requires a leap of imagination; the more potent image it suggests is the one

the PlayPump's producers are glad to reinforce, that of children playing.

The PlayPump's mode of operation made for what Gary Edson, short-lived CEO of PlayPumps International, described as "compelling images of children at play on our equipment" (Edson 2009). As Field says, "There's nothing quite like children's power as a pure energy source" (World Bank 2004). We can read pure as in a "clean" (or green) energy source, but we can also read "pure" in a more metaphorical sense: children as icons of innocence, not bearing the same assumed responsibilities as adults. This must be one of the reasons why children are such a stereotypical subject of aid campaigns: they present an uncomplicated image of humans in need. Designing the PlayPump to be operated by children means it is always represented with children included—and is I am sure what Trevor Field, with his career in advertising (hence image creation), immediately perceived to be a major advantage of the technology. As Field said about his former career: "I used to sell dreams, hopes, and goals for the future" (Field 2008).

The phrase "magic roundabout" (which headline writers presumably based on the title of the popular British children's television show) also reveals the spectacular allure, and the careful crafting of the PlayPump object itself. The PlayPump is most likely perceived of as "magical" because it creates the appearance of work accomplished without human labor. The apparent innovation of the PlayPump is to have the work of water pumping accomplished as a by-product of children's play. The design of the system, with the pumping mechanism hidden inside the roundabout, and all connections between the roundabout and the water tank concealed beneath the ground, creates the illusion of roundabout and

pump operating independently. Coca-Cola during their partnership with Roundabout Outdoor described the PlayPump as "a children's roundabout with a hidden agenda to provide energy for a borehole pump" (Coca-Cola 2000). The construction of the PlayPumps International slogan "Kids Play. Water Pumps!" as two separate sentences emphasizes the separation of these two concurrent activities, implying that there is almost no causal relationship between the two phenomena. This "modern-day alchemy" converts "the energy of children cavorting on a simple playground merry-go-round into clean water" (Everline 2007). It transforms work into play.

The PlayPump takes its place among other magical objects in the European folk-story tradition that produce goods without labor: salt grinders, cooking pots, axes, and harps. Walt Disney portrayed a version of the German fairy-tale "The Magician's Apprentice" in *Fantasia* (1940), with Mickey Mouse as the apprentice unable to keep control of a magical broom he attempts to have do his work for him—as is usually the moral with these stories. As with the figure of speech "child's play," a model for "magical" labor-saving objects such as the PlayPump already exists in Western culture—and more widely: "All productive activities" of the Trobriand islanders, for example, noted the anthropologist Alfred Gell (1992, 224), "are measured against the magic-standard, the possibility that the same product might be produced effortlessly."

Through the PlayPump, two apparently opposite ideas, (adult) "work" and (child's) "play" are collapsed. It performs alchemy, transforming work into play. But what effect does the accomplishment of these powerful messages, which proved so enthralling to audiences to the project, have on the functioning of the technology on the ground?



## An Inappropriate Technology

Matching children's play—by most people's definition a voluntary, sporadic activity—to the achievement of an everyday, essential task in resource-poor settings was a high-stakes gamble. Setting up such a system successfully, if it were possible, would require careful observation of children's play habits over time, calculations of how much water could be pumped reliably in this way, and how many people could be supplied with an adequate amount of water. None of this work was done for the PlayPump. Studies of the PlayPump both on paper and in the field demonstrated that it did not pump water at anywhere near the rate its promoters claimed, and it could not possibly supply nearly as many people as it was intended to.

This was caused in part by the same features of the pump upon which its “magic” relied: Although concealing the connection between children's play and water pumping impressed distant audiences to the project, it hindered the operation of the pump on the ground. The 2008 study in Mozambique found that hiding the PlayPump's pumping mechanism within the roundabout drastically reduced the stroke of the pump and so the rate at which it could pump water relative to a conventional hand pump. This low pumping rate ensured that children's play could not provide enough water for their community.

## Play and Passivity

Ignorant of the poor reception of the PlayPump among many of its users, some first-world designers went further in interpreting the system's incorpora-

As a result, children's play did not *substitute* for adult work, as representations of the project suggested, but was in competition with it. The team employed by the Mozambiquan government to evaluate PlayPumps in that country noted: “In hot weather with sunshine, it is unpleasant to operate the pump during the time between late morning to early afternoon. Early morning and late afternoon is also the time when the adults want to fetch water. During this time they don't like if their hard work of drawing water is interrupted by playing children” (Obiols and Erpf 2008, 25).

The PlayPump's roundabout was uncomfortable for adult women to use in this way. Designed for children, the roundabout was at a height appropriate for their use, not for use by adults. Back pain was reported as a common complaint. Pregnant women and the elderly were not able to use it at all. Some women also felt humiliated at having to use a children's plaything: UNICEF interviewed women who were embarrassed to be seen operating the roundabout, especially “where the people watching them did not know the linkage between the ‘merry-go-round’ and the water pumping,” for example where the pump was near a public road (UNICEF 2007, 10). Encoding child's play into the PlayPump rendered it inappropriate for the adults who were compelled to use it.

tion of play: as a means by which communities could “celebrate” the gift of water they had been given through the donation of the pump. “Water pumps are

placed in areas of high drought and provide drinking and irrigation water. They greatly benefit the surrounding areas and are seen as something to be celebrated” the Centre for Design Innovation in Ireland reasoned. “Designing a pump which incorporates the play of children, takes this emotional element into account. Its design combines the function of the pump with the celebration of its installment and use” (Centre for Design Innovation 2009).

This representation of the PlayPump as enabling celebratory expressions of gratitude is reinforced by Crealy Adventure Parks in Britain, which installed modified PlayPumps in its parks as an amusement ride for first-world children. They proposed to install a cash machine next to each roundabout “where children can make donations. As people insert money or swipe a credit card, a screen above will show children in Africa riding on the roundabout and shouting, “Thank you!” The money raised will go to install more roundabout pumps in Africa” (Lamb 2005).

But many users of the PlayPump were not grateful for the “gift” they had received. Many wanted their original hand pumps back. While the PlayPump is given without cost to users, the Mozambiquan team noted that at least some communities “prefer paying while keeping control of their services” as they had previous to the PlayPump (Obiols and Erpf 2008, 39). Where some communities had to pay into water-point committees that managed hand pumps, the PlayPump promised a free maintenance service funded by billboard income. The PlayPump could only be repaired by the company managing this income—but users experienced long delays waiting for this service, and the pump was not designed for repair by users (as some hand pumps are). As Joaquim George, of Mozambique’s Rural Water Authority, told Costello: “we know it is free, but it doesn’t work properly” (Costello

2010b). Both UNICEF and the Mozambiquan government’s reports identified problems with a lack of adequate community consultation in installing PlayPumps, which compounded their frustration with the system. Users were denied an informed technology choice between the PlayPump and the existing hand pumps that the PlayPump replaced.

The PlayPump’s treatment of its users as passive recipients of aid denied a choice of preferred technology and a part in its maintenance—whose only role designed into the technology is a daily celebration of gratitude through play—is reflected in the PlayPump’s relationship with its funders, its first-world audience. Audiences as well as users are disempowered by the PlayPump, which offers them the opportunity to give with the minimum of effort, and without advancing their understanding of the developing-world issues they desire to mitigate. Crealy Adventure Parks’ proposed mode of giving, whereby first-world visitors swipe their credit cards and receive an instant pre-recorded message of gratitude, is emblematic of this relationship.

This was a specific intention of the PlayPump’s partners. One Water wrote on its Facebook campaign page for the PlayPump: “we rarely talk about the problems in Africa. We’d rather focus on the solution and create good feelings. Make a change in the world and have fun at the same time” (“Mark” 2010). Field described One Water’s model as “a really clever way to get a lot of people to donate money to a charity without really thinking about it. . . . All you do is buy a bottle of water and you know you’re doing the right thing” (Fry 2007). The PlayPump’s invocation of play as “not work” for its users, a supposed benefit of the system, extends to its donor audience—they too are spared the work of inquiry into the developing-world problems they would like to help solve.

## The Performance of Play

Part of the reason why a distorted vision of the PlayPump can be maintained for audiences is their geographic separation from users, with the producers and partners to the PlayPump controlling the play of images across the “screen” separating first-world audiences from developing-world users. But strangely enough, distorted images of the PlayPump can persist even when privileged onlookers visit individual PlayPumps in the field—as happened to Amy Costello in her first film for PBS, when she visited a PlayPump with Field and saw children enthusiastically playing on the roundabout.

This phenomenon of children performing to the expectations of outside onlookers was observed by Karl Erpf from Swiss water consultancy SKAT, a member of the team studying PlayPumps in Mozambique:

In most schools visited, children were not always moving the play wheel—they often enjoyed the PlayPump as a gathering place, just sitting on it and chatting. However, as soon as the evaluation team (foreigners) walked towards the PlayPump, the children rushed to the pump (like they have been told), showing their ability to rotate the play wheel at an enormous speed. The children pushing the wheel with such a high speed could only keep up this pace for a few minutes before being exhausted. (Obiols and Erpf 2008, 24)

Erpf’s report here highlights, in parentheses, the telling parts of this phenomenon: the evaluation team are “foreigners,” and the children play “like they have been told.” They spin the wheel at great speed for a short time, and then stop exhausted after a few minutes. Clearly, this is not a realistic depiction of the way the pump is used, though it happens right

before the eyes of the observer. Engineers without Borders blogger Owen similarly described the difficulty he had in photographing adult women in Malawi operating the roundabout by hand, though he knew from past observation that this was the way the PlayPump’s roundabout was used most of the time:

Each time I’ve visited a Playpump, I’ve always found the same scene: a group of women and children struggling to spin it by hand so they can draw water. I’ve never found anyone playing on it. But, as soon as the foreigner with a camera comes out (aka me), kids get excited. And when they get excited, they start playing. Within 5 minutes, the thing looks like a crazy success. Kids are piling on top of each other to spin around on the wheel, and women can fill their buckets without having to work (although I’ll note that the buckets still fill slowly). (Owen 2009)

The very similar experiences of Owen and of Erpf show that the distorted view of the PlayPump supplied by its makers and partners to audiences in the first world might be replicated right on the site of an individual PlayPump, due to the desire of locals, children especially, to put on a show for a foreign visitor. Owen warns that:

If you show up in a community with a Playpump, it will look like a success. Kids will play. Water will flow. But all of this is likely only happening because you are there. And if you can’t ask the right questions, or if you are travelling with a guide who has a vested interest in the technology (e.g. an NGO worker who installs Playpumps), then you will never know the difference. Same goes if you only watch the promotional videos on the Playpump website. (Owen 2009)

The “screen” that I have suggested divides the PlayPump on the ground from audiences is not so easily pierced, and its effects may persist even to the object itself. In these instances, the screen that divides our diagram acts perhaps more like a flexible membrane, which accommodates the move-

ment of the viewer, maintaining its integrity even when the viewer imagines he or she has crossed it. The larger systems at work that divide first-world viewers and developing-world users, with their enormous imbalances of power, are not so easily surmounted.

## Conclusion

It is not just distance that enables idealized and unrealistic images of the PlayPump’s performance to be presented to first-world audiences—it is primarily a product of the unequal power relationships between first and developing world. Because of this difference in power, the impressions of individuals and organizations in Europe and the United States took precedence over the experience of users of the PlayPump in the developing world, and a technology that was inappropriate to its contexts of use was imposed on communities in Southern Africa.

In this relationship, notions of “play” were mobilized in a number of ways. Children’s play was used as a compelling image to attract support, with its promise to save children and adults from the labor of manual water pumping. As a result, adults were made to perform to a script written for the gratification of distant audiences, bending to the wheel of the PlayPump’s roundabout. The PlayPump insisted that they be children—it infantilized them both in this quite literal way, and in more metaphorical ways: in denying them a choice of technology or a role in the pump’s management.

Audiences in the first world were able to imagine this fanciful technology for accessing a daily necessity to be genuinely useful—for it to be celebrated by its users in fact. Never mind that for its Western sup-

porters, water is accessed through simple, everyday technologies without ritual. There are many things that are onerous about water collection for poor people in rural parts of the developing world, but the up and down motion of a manual hand pump is not one of them (Owen 2009). Play was presented as way of negating work—play as “not work.” But matching play to a necessary, daily task resulted not in less work, but more.

This fantasy of using a “waste” resource, energy as a by-product of children’s play, finds correspondence in other examples from the first world: nightclubs with sprung floors that generate electricity to power the venue, cinemas powered by bicycles, gyms by the people exercising on their equipment. But crucially these examples match play with play—they power nonessential services. Other ubiquitous sources of energy are always present. To design similar systems for daily necessities is a much riskier proposition, and the fact that the PlayPump replaced other technologies for water compounded this risk, leaving some communities with no other source for water.

The PlayPump disempowered both its users and its supporters. The PlayPump associated play with entertainment, with pleasure for the viewer as well as the user. This pleasuring of the viewer involved shielding him or her from the complexities

of developing world problems, inviting only the viewer's passive donations. This association of play with the uncomplicated pleasure of giving is evoked by another recent design project for the developing world: the Sockett, a soccer ball with an internal generator and USB outlet powered by motion. "We want people to realize that making a difference doesn't have to be serious, complicated or boring" say its producers. "It can be as simple and fun as playing a game" (Davis 2012, 38).

The story of the PlayPump speaks to the risks in framing design projects as a form of spectacle for

audiences removed from their contexts of use—with "play" used here as part of the project's narrative appeal—and to the mismatching of "play" to an essential task, with negative consequences for users. The ground upon which design for development objects such as the PlayPump operate is highly unequal. Whatever games are played on it need to be more than simple and fun, and making a difference may require changing the rules of the playing field in much more fundamental ways than such objects imagine.

## Note

1. By which I mean largely Europe and the United States—but also privileged audiences anywhere. South Africa, for example, where I am from, mixes first and developing world in one country, which is

common to many countries in both the global North and South. I explore the notion of power over geography in defining first versus developing world later in this chapter.

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