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University of
Kent

Moonshot Philanthropy

Characteristics, Contributions, Critique

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Executive Summary

Moonshot thinking

A ‘moonshot’ is a challenging goal, achievement of which requires innovation and will have significant, transformative results (see for example X The Moonshot Factory, 2023). Moonshot thinking refers to the pursuit of such long-term, ambitious goals.

The language of moonshot thinking stems from President JFK’s famous “We choose to go to the moon” in 1962. The ideas, however, are much older and have fluctuated in popularity over time.

Recently, moonshot thinking has recently been called for in fields as diverse as energy (Sumper et al., 2023), economics (Mazzucato, 2021), and psychiatry (Nasrallah, 2022). Advocates believe moonshot thinking will inspire collaboration, innovation, and effort, and attract funding, towards ambitious future objectives (Anthony & Johnson, 2013; Dimitrov, 2021; Goldman et al., 2016; Hallaba & Dirks, 2023; Hamel, 2009; Rodrigues, 2021; Sanei, 2017).

Characteristics of moonshot philanthropy

These ideas and language have also been advocated in the philanthropy field. ‘Moonshot philanthropy’ has gained increasing attention amongst philanthropy practitioners across the past 5 years, but has yet to be thoroughly examined, and lacks a clear definition. Through examining practitioner discourse – reports, interviews, panel discussions, podcasts, blog posts, and online articles – we identify six defining characteristics of moonshot philanthropy:

- **Ambition:** Pursuing a moonshot (highly ambitious goal), achievement of which requires significant innovations and seems

almost impossible, but will have transformative impact.

- **Boldness:** Actively seeking and taking on risks other stakeholders cannot, and embracing failure as an opportunity to learn and adapt.
- **Collaboration:** Catalysing change by bringing multiple stakeholders together, aligning the ecosystem behind a shared vision.
- **Determination:** Long-term thinking and funding to support ambition, risk-taking, and experimentation needed when pursuing moonshots.
- **Expertise:** Addressing donor ignorance, building and empowering a network of experts (including end beneficiaries), and generating an evidence base of ‘what works’.
- **Funding:** Absorbing the large financial cost, focussing funding on defined issues and risky, innovative ideas that may take a long time to yield an impact.

Moonshot philanthropy approach

Taken separately, none of these characteristics are new to the philanthropy field. However, taken together as a cohesive ‘moonshot approach’, they may offer advantages for addressing the increasing scale and complexity of social and environmental issues, and a refreshing alternative to much-criticised donor-centric philanthropy.

Based on our extensive analysis of practitioner discourse on moonshot philanthropy – and moonshot thinking in other fields – we consequently define moonshot philanthropy as: **a high-risk, long-term approach to philanthropy that combines collaborations with multiple stakeholders and experts with funding for innovations with transformative potential, all in pursuit of ambitious goals.**

Introduction

On 12 September 1962, US President John F Kennedy made the first public commitment to putting a man on the moon within that decade (Kennedy, 1962). Shaped by this now famous “We choose to go to the moon” speech, the term ‘moonshot’ has since been ascribed the meaning of a challenging goal, achievement of which requires innovation and will have significant, transformative results (see for example X The Moonshot Factory, 2023).

Use of the term has increased substantially over the past decade, particularly in the fields of technology and healthcare. For example, US President Jo Biden’s Cancer Moonshot and Alphabet’s development of the driverless car have both been described by their leaders as ‘moonshots’. Similarly, significant achievements of the past – such as the eradication of smallpox and restoration of the ozone layer – have been described retrospectively as moonshots (Amato, 2019a).

Moonshot thinking – the pursuit of long-term, ambitious goals – has recently been called for in fields as diverse as energy (Sumper et al., 2023), economics (Mazzucato, 2021), and psychiatry (Nasrallah, 2022). Companies have been encouraged to have a moonshot goal, and to embrace moonshot thinking to inspire collaboration, innovation, and effort, and attract funding, towards ambitious future objectives (Anthony & Johnson, 2013; Dimitrov, 2021; Goldman et al., 2016; Hallaba & Dirks, 2023; Hamel, 2009; Rodrigues, 2021; Sanei, 2017). In short, moonshot thinking and methods have been advocated for and gained traction across a range of fields and industries.

This paper explores the application of these ideas to the philanthropy field. Dubbed ‘moonshot philanthropy’, the result is a high-risk approach to philanthropy targeted towards large-scale, ambitious goals (i.e. ‘moonshots’) (Breeze & Chen, 2022). Such practices are not new to the philanthropy landscape; we have seen various examples of ambitious philanthropic goals over the past several hundred years. However, in the present context of ongoing climate, conflict, ecological, economic, epidemiological, and humanitarian crises, attention on and interest in high-risk models of large-scale philanthropic activity like moonshot philanthropy have increased. Might moonshot philanthropy offer something different that can help address the large-scale, increasingly complex and overlapping challenges of our time, whilst also offering a model for how philanthropy can improve and respond to criticisms of how it is currently practiced and perceived?

To date, explicit discussion of moonshot philanthropy has been driven by practitioners, including philanthropists claiming to adopt such an approach, and their supporters. From examining these sources – which include reports, interviews, panel discussions, podcasts, blog posts, and online articles – we identified several key characteristics of this approach. We refer to these as the ABCs of moonshot philanthropy. They are: ambition, boldness, collaboration, dedication, expertise, and funding. Taken separately, none of these characteristics are necessarily unique to philanthropic practice. However, taken together, the combination of these six characteristics distinguishes moonshot philanthropy from other contemporary philanthropic approaches, and may be advantageous in addressing some of today’s biggest social and environmental challenges.

In this paper, we examine each of these characteristics whilst highlighting their connections to JFK’s ‘original’ 1962 moonshot.

Ambition

Having a ‘moonshot’ goal

First and foremost, central to moonshot philanthropy is the targeting of an ambitious goal, referred to as a ‘moonshot’. Based on our exploration of practitioner discourse, we define a moonshot as: an ambitious goal to address a complex challenge, achievement of which requires innovation and will generate transformative impact. Moonshots are complex by virtue of scale, necessary costs, and the presence of multiple, possibly competing, stakeholders (Amato, 2019b; Brooks, 2023); they are challenging to the point that they seem almost impossible to achieve (Altimus, 2023); and they cannot be accomplished by continuing ‘business as usual’ – they require breakthroughs, developments, and new ways of doing things (Dimitrov, 2021; Goldman et al., 2016; Hallaba & Dirks, 2023; X The Moonshot Factory, 2023).

Etymology of ‘moonshot’

- 1936, used in **horse racing** to describe a ‘long shot’, i.e. a horse unlikely to win so would yield significant winnings if a bet was placed on them.
- 1949, used in relation to **space travel**, specifically “The launching of a spacecraft to the moon”.
- 1961, used in **baseball** to describe a big hit by a batter, especially if the ball went over the left-field fence (thereby scoring a home run). First used by a baseball commentator in describing Wally Moon, a left-handed baseball player with an unconventional swing.
- 1962, used to describe an **ambitious, expensive task** which, if achieved, will have significant outcomes. Similar to ‘long shot’, in that due to the complexity of the task, success may seem impossible or at least immensely challenging. At the same time, the antonym ‘moondoggle’ was also introduced – an adaptation of ‘boondoggle’, a project that is a waste of time and money but still continued due to political motivations.

Compiled from Oxford English Dictionary, Merriam-Webster, and Cambridge Dictionary

In his 1962 speech, JFK famously stated: “We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard”. To many, at the time of his speech, putting a man on the moon (and, importantly, ensuring his safe return) seemed impossible. JFK encouraged the US to embrace the challenge, doing something despite it being difficult because he believed it needed to be done, and because no one else had yet done it.

Moonshot goals in philanthropy are similarly ambitious and challenging. Indeed, not all barriers and challenges, never mind the solutions to them, will yet be known (Amato, 2019b; Breeze & Chen, 2022; William Blair, 2021). By (our) definition, moonshots will have transformative impact if achieved. Moonshot philanthropists therefore aim not to relieve immediate suffering through their philanthropy, but to have world-defining, “paradigm-shifting” (Chen, 2022; Milken Institute, 2023), “disruptive impact” (Chen, 2023a), catalysing “systemic change” (Redvers, 2022; Zagury, 2021). For example, in the health sector, a moonshot philanthropy venture would aim to cure cancer, rather than provide emotional support to cancer patients and their families.

In Table 1, we list examples of moonshot goals, identified through examining practitioner sources.

Table 1: Examples of moonshots.

Moonshot	Area	Driven by (moonshot funder)	Funder location	Moonshot target area
Eradicate malaria	Health	Bill and Melinda Gates Foundation	US	Global
Eliminate diarrheal disease deaths in young children	Health	Bill and Melinda Gates Foundation	US	Global
Provide vision correction (eye care, treatment and affordable glasses) for all of Rwanda	Health	James Chen, Clearly/ Vision for a Nation	HK	Rwanda
Eradicate polio globally	Health	Rotary International	Global/ US	Global
Cure Alzheimer's	Health	Lauder family, Alzheimer's Drug Discovery Foundation , StartUp Health	US	Global
Cure cancer	Health	Joe Biden's Cancer Moonshot ; Mike Milken's Prostate Cancer Foundation, MD Anderson Moon Shots Program	US	Global
Prevent, manage and cure Type 1 diabetes	Health	StartUp Health	US	Global
Cure COVID	Health	COVID Moonshot (consortium of international scientists, crowdfunding venture)	International	Global
Cure, prevent, or manage all diseases	Health	Chan Zuckerberg Initiative	US	Global
Halve the burden of depression	Health	UCLA Grand Challenges	US	Global
Cure Parkinson's Disease	Health	Michael J Fox Foundation	US	Global
Treat and cure rare diseases (beginning with Pompe disease)	Health	John Crowley and wife (Amicus Therapeutics)	US	Global
End mental health stigma, remove barriers to accessing mental health support, provide every young person with access to a mental health professional	Health	Milken Institute Moonshots for youth mental health and wellbeing	US	US
Close wealth gap in Chicago	Inequality	Chicago Community Trust	Chicago, US	Chicago, US
Engage 1 million girls in STEM learning in 5 years	Tech	'Million Girls Moonshot'	US	US
End discriminatory algorithms	Tech	AlgorithmWatch	Germany	Global
End violent extremism, disinformation, targeted violence, human trafficking, gender-based violence, child exploitation, hate speech, online harms	Tech/ Violence	Moonshot CVE (harnessing the internet for good)	US	Global
End child abuse in the UK	Violence	NSPCC Full Stop Campaign	UK	UK
End modern slavery in this generation	Work/ Violence	Walk Free Foundation , established by Andrew & Nicola Forrest	Australia	Global

Complex challenges require ambitious goals

Ambitious goals are needed given the scale and complexity of contemporary challenges. It has been argued that we are now in an age of polycrisis – the simultaneous occurrence of multiple catastrophes which interact with one another, amplifying their impact beyond what would have been had they occurred separately (Tooze, 2022). The COVID-19 pandemic, conflicts in the Ukraine and Middle East amidst wider geopolitical tensions, the climate crisis and a related increasing prevalence and severity of natural disasters, and other ongoing challenges are collectively increasing the severity of social and environmental issues faced, whilst decreasing our ability to address them. The task of addressing multiple crises simultaneously drains resources and energies much quicker than tackling individual problems sequentially.

A useful indicator for exploring the state of multiple contemporary challenges is the Sustainable Development Goals (SDGs) and our progress towards achieving them by 2030.

The Sustainable Development Goals are disappearing in the rear-view mirror, as is the hope and rights of current and future generations.

United Nations

(United Nations, 2023, p. 4)

Just 12% of the SDGs are now on track to be achieved. According to the United Nation's (UN) (2023) latest progress report on the SDGs, 30% have either failed to improve at all or have reverted to worse than they were in 2015 - the year the SDGs were adopted. The UN's own assessment indicates that the promise to achieve the targets by 2030 is now "in peril".

Dreaming big

Solving large complex challenges requires not only ambition but the ability to imagine a future that looks considerably different to the present. In recent years, multiple commentators have deplored an apparent lack of imagination in the philanthropy and nonprofit sector (e.g. Haldane & Choukeir, 2022; Mulgan, 2022; Robinson, 2022, 2023).

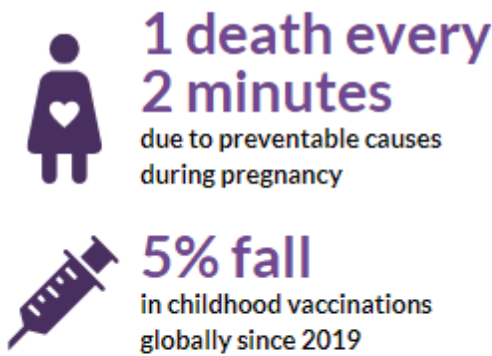
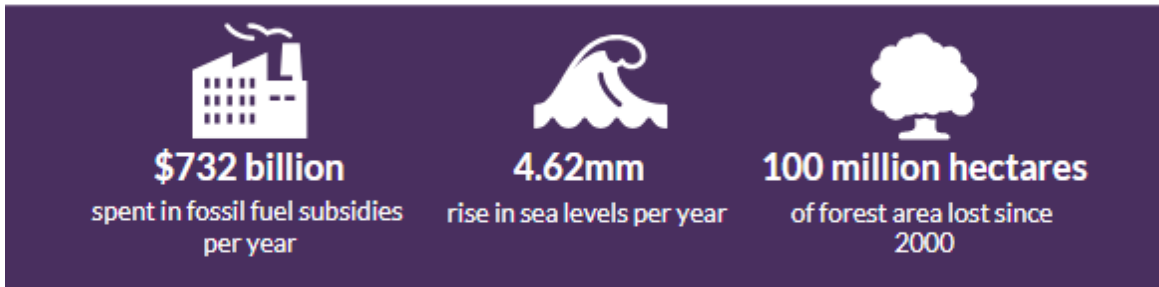
I'm convinced that we're suffering from an 'imaginary crisis'. [...] We can more easily imagine the end of the world than a better future.

Geoff Mulgan

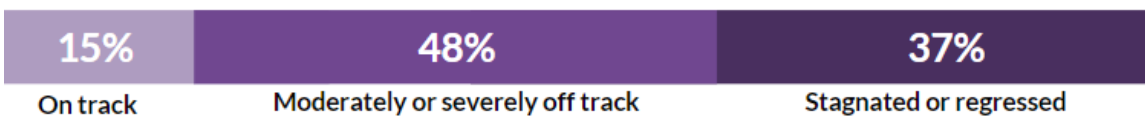
(Mulgan, 2022)

When discussing 'dreaming big' or being imaginative in philanthropy, it is important to consider who is empowered to dream big, whose interests those dreams are in, and ultimately whose dreams are pursued. A long-acknowledged limitation of philanthropy is its particularism: thanks to philanthropy's voluntary nature, philanthropic contributions are typically directed towards "particular subgroups of the population" (Salamon, 1987, p. 40) with which philanthropists resonate. The personal preferences of wealthy donors may not align with the needs of the communities they aim to serve (Hay & Muller, 2014; Ostrander, 2007). To overcome this limitation, we must build 'imagination infrastructures' which support collective imagining (Robinson, 2022, 2023). Targeting philanthropy towards large-scale, shared problems (such as those encompassed in the SDGs), and designing interventions through collective imagining, may overcome the particularism of past philanthropy.

Facts and Figures



SDG Indicators Progress



^All data from United Nations (2023).

Boldness

Seeking risks

JFK (1962) described putting a man on the moon as “the most hazardous and dangerous and greatest adventure on which man has ever embarked.” He knew there were substantial risks involved in the mission – primarily the risks that they failed, that they were beaten to it by Russia, and that those involved in the mission would not return safely home. All had associated political risks (to JFK and the Democratic Party’s image) and financial risks (loss of billions in taxpayers’ money). In the face of such risks, JFK stated simply, “we must be bold”.

Achieving moonshot goals involves taking significant risks. The ability to take risks is described as a “superpower” of philanthropy (Chen, 2021a, 2021b, 2023c). Whereas governments are accountable to their electorate, and companies are accountable to their shareholders, philanthropists control their own, private capital with far fewer accountability mechanisms (Amato, 2019b). Though this may raise democratic concerns over unaccountable influence (Reich, 2018), it does provide philanthropists with the capacity to absorb greater risks with their philanthropy than other stakeholders can achieve (DeBoskey, 2021). Despite this ability, most philanthropists are presumed or perceived to typically avoid taking risks (Deboskey, 2019; Ealy, 2014; Simon, 2016), instead using philanthropy itself as a risk-management tool to protect themselves against reputational damage (Kuldova, 2018; Walker & Sarkodie, 2019).

In contrast to the perceived risk aversion of some other philanthropy approaches and the wider social impact sector, moonshot philanthropy supports “maverick thinking” (Chen, 2023a) and “out-of-the-box ideas” (World Economic Forum, 2022; Zagury, 2021). In moonshot philanthropy, “unknown ideas” (Ressler, 2023) and “unconventional, disruptive solutions” (Milken Institute, 2023) are tested. Support is targeted towards “early-stage innovations” that are as-yet unproven, to explore their potential and determine whether they can be developed into scalable solutions (Chen, 2023c; Murphy, 2023). Moonshot goals can only be achieved by ‘doing things differently’, innovating, and driving change (Goldman et al., 2016).

In a context where the challenges faced are not only enormous but also compounding one another, finding solutions requires a large commitment and will involve substantial risk. The embracing of risk core to the moonshot approach is therefore a substantial advantage when compared to the perceived risk aversion of other philanthropic approaches (Deboskey, 2019; Ealy, 2014; Simon, 2016).

Taking on a large degree of risk is seen as both an opportunity and an obligation by moonshot philanthropists (Brooks, 2023). By taking on the risks themselves, moonshot philanthropists are able de-risk the wider sector they are working in, supporting other stakeholders (including more funders) to enter the space, thereby accelerating progress (Brooks, 2023).

If philanthropy doesn’t act as society’s risk capital, we’re making a terrible mistake.

John Palfrey, President, MacArthur Foundation

Quoted in: (Dubb, 2023)

Given the large degree of risk involved, moonshot philanthropy has been described as a “high-risk, high-return” (Amato, 2019b) or “high-risk/high-reward” approach (Ressler, 2023), taking on a ‘big bet’ by placing most of one’s philanthropic capital in a high-risk lane (Brooks, 2023).

Embracing failure

The key risks described by moonshot funders are reputational and financial: if a philanthropic investment is deemed a 'failure', this can negatively impact the reputation of the capital-provider as well as the obvious loss of financial capital.

A tag line of moonshot philanthropy is “privatise failure, socialise success” (Milken Institute, 2023; Redvers, 2022). Rather than avoiding failure, failure is embraced by moonshot philanthropists as an inherent part of identifying and developing “successful social innovations” (Chen, 2023b). Proponents emphasise the need to learn from failure, adapting one’s theory of change and improving on methods (Burroughes, 2023; X The Moonshot Factory, 2023).

Society has conditioned us to see failure as something shameful and best to be avoided at all costs. The thing is, though, taking moonshots isn't possible without failing a few times along the way.

X, The Moonshot Factory
(X The Moonshot Factory, 2023)

We’d rather be the first to fail than the last to succeed.

John Crowley, Executive Chairman, Amicus Therapeutics
(Crowley, 2023)

Failure is acceptable for moonshot philanthropists because the benefits of achieving their moonshot goal far outweigh the extraordinary risks involved in getting there. Resonating with the Silicon Valley mantra of “fail fast” (e.g. Giles, 2018), moonshot philanthropists reframe failure as an opportunity to learn (McQueen, 2022; X The Moonshot Factory, 2023).

In the philanthropic context, failure must still be critiqued: failure has real and significant consequences on communities. Beneficiary groups and areas should not be cast as laboratories of experimentation (Fejerskov, 2017) but as real people. Thus, *how* philanthropy fails and the impact of that failure must be carefully examined; not all failure is a beneficial learning opportunity.

Collaboration

It takes a village

When Neil Armstrong took the first human steps on the moon, the achievement was not his alone. It took an estimated 400,000 strong team of astronauts, scientists, engineers, pilots, mathematicians, secretaries, and seamstresses to get him there (Dunn, 2019). The mission also required public support, without which political backing (and therefore funding) for the venture would have waned. Indeed, the purpose of JFK’s 1962 speech was in part to rally the American public behind the shared goal of putting a

man on the moon. Russia had beaten the US to put the first satellite in space with Sputnik 1 in October 1957, and again to put the first man in space with Yuri Gagarin in April 1961. In the midst of the ‘Space Race’ amongst the Cold War rivals, JFK’s speech in 1962 sought to rally political will in the USA behind the moonshot, and the country’s competitive spirit to ensure the first man on the moon was American. The mission was described as “a great national effort of the United States of America” (Kennedy, 1962).

When it comes to addressing contemporary social and environmental challenges, philanthropic resources alone have been recognised as insufficient – philanthropy is too small and fragmented across a spectrum of activities (Reich, 2020; Salamon, 1987). In relation to the SDGs, philanthropic funding has been described as a ‘drop in the bucket’ (Vos, 2023). Before 2020, the cost of financing the SDGs was estimated to be facing a shortfall of \$2.5 trillion per annum. In just one year, 2020, the SDG financing gap increased by 56% to \$3.9 trillion (OECD, 2022). To put this in perspective, the estimated annual cost of achieving the SDGs is between \$5.4 trillion and \$6.4 trillion per annum, meaning only a quarter to a third of what is needed is currently being spent (United Nations, 2023).

SDG Funding Gap



\$5.4 trillion
minimum annual spend
needed to meet goals



\$3.9 trillion
annual funding gap

Thus, to be successful, a moonshot needs to inspire many people to work towards it, and to work together (Anthony & Johnson, 2013). Moonshot philanthropy involves working closely with state and non-state stakeholders towards a shared vision. Successful moonshot philanthropy therefore requires philanthropists to provide not only their risk-taking mindset and wealth, but also their ability to build and maintain extensive networks (Chen, 2023c). Serving as “partnership brokers”, philanthropists may catalyse impact beyond their own limited funds (Gehring, 2020). Articulating a moonshot and working towards it can build momentum towards a shared objective:

A key piece of the moonshot is having a vision of something that feels impossible and bringing that vision into a space that it catalyses activity and momentum amongst a lot of different stakeholders.

Cara Altimus, Managing Director, BD²

(Altimus, 2023)

Importantly, moonshot funders talk not just about collaboration but also ‘alignment’ of stakeholders, goals, and resources behind the shared moonshot goal. Such alignment can increase the scale of impact and accelerate the pace at which that impact is achieved. To achieve a moonshot, the whole ecosystem has to work together (Altimus, 2023).

Key collaborators

Offered as a counter to other more donor-centric philanthropic efforts, moonshot philanthropy promises to unite a broad range of collaborators – including “funders, experts and front-line workers who share the passion and perseverance to make a dream a reality” (Breeze & Chen, 2022).

Crucially, moonshot philanthropists liaise with policy-makers (HSBC Global Private Banking, n.d.), practicing advocacy at the highest levels of national and international government to gain support and shape existing or inform new policy (McQueen, 2022). In so doing, moonshot philanthropists can achieve substantial impact on a national or even international scale, with governments and international bodies (e.g. the United Nations) committing to also act in line with and further support their moonshot goal.

For example, in the field of vision correction, moonshot philanthropist James Chen has worked with governments to introduce national eye care plans and campaign internationally to have vision correction embedded in policy agendas. As a result, in 2021, the United Nations adopted a resolution committing member states to eye care and health for the 1.1 billion people living with preventable sight loss by 2030 (75/310 Vision for Everyone: Accelerating Action to Achieve the Sustainable Development Goals, 2021). Collaboration between philanthropy and government in particular is essential as their relative strengths and weaknesses are complementary to one another (Salamon, 1987).

As well as policy-makers, moonshot funders have also described working with and learning from the private sector such as learning from companies how to market ideas and initiatives to intended audiences, attracting businesses to provide funding towards moonshot goals, and providing incentives for private sector entities to align themselves with moonshots within their own corporate mission statements (Altimus, 2023; Brooks, 2023; Crowley, 2023; Lotito, 2023).

Policy-makers



Industry



Charities/NGOs



Communities



Moonshot philanthropists and their supporters emphasise such collaborations are “respectful”, working with rather than usurping stakeholders – particularly governments (Breeze & Chen, 2022).

Determination

Long term thinking

Achieving a moonshot goal requires moonshot thinking. That is, long-term future-back strategizing, starting with a vision of the future and then working backwards to figure out how to get there (Anthony & Johnson, 2013). This requires far longer-term planning than the typical three years of most organisational strategies.

In the 1960s, JFK aimed to put a man on the moon within that decade. A successful moon landing was not going to happen overnight – it required years of committed funding and interest. At the same time, providing a deadline to the goal created a sense of urgency.

Contemporary moonshots – such as curing diseases, closing wealth gaps, or ending child abuse – will similarly take a long time to address. Identifying and bringing together the necessary stakeholders, building and sharing the necessary knowledge (through research and sharing of expertise), and

developing meaningful solutions will not happen quickly. Moonshot philanthropy therefore demands a long-term commitment from the funder and relevant stakeholders, and resilience in the face of failures, challenges, and setbacks (Ressler, 2023).

Ambition takes time

A long-term philanthropic commitment has been called for by philanthropic organisations, charities, and philanthropy commentators (e.g. Jordan & Lane, 2023; Ramsbottom, 2021). Long-term support is needed when pursuing long-term goals. It provides a sense of stability to recipient organisations and the opportunity for building long-term partnerships and capacity, all of which is needed to expand projects to scale. Long-term relationships can also benefit the philanthropist, facilitating communication between them and recipients and more opportunity to see the impact of their contributions (a rewarding experience).

As well as being essential for addressing the scale of moonshots pursued, long-term thinking and funding is also necessary to support the level of ambition required:

The median philanthropic grant made by America's large foundations is \$50,000 and lasts about 18 months. Such small-scale philanthropy constrains effective leaders, forcing them to keep their ambitions and programs modest.

MaCarthur Foundation

(MaCarthur Foundation, 2024)

Long-term funding and thinking provides time and space for different stakeholders to imagine new ideas, test different approaches, learn from past results, and then to try again.

Moonshot philanthropists use the language of 'investment' to reflect their long-term commitment, investing long-term, 'patient' capital (Amato, 2019b). Chen (2022) argues moonshot philanthropy is about investing "10 years, not just £10 million" in a particular cause. Fellow philanthropist John D. Arnold (2022), similarly described moonshot philanthropy as being "in it for the long haul".

Expertise

Addressing ignorance, building expertise

When JFK announced the US mission to reach the moon, we did not yet have all the scientific answers and knowledge of how to get there: "...we meet ... in an age of both knowledge and ignorance. The greater our knowledge increases, the greater our ignorance unfolds" (Kennedy, 1962).

We similarly do not yet have all the answers as to how contemporary moonshot goals are to be achieved. Achieving moonshots requires a wide variety of expertise – hence collaboration is so important. It also requires learning over time, as knowledge and understanding of an issue evolves and new insights emerge.

Though philanthropists are typically assumed to be ‘experts’ (conflating wealth with wisdom), they tend to lack expertise specific to the cause they claim to target (Jung & Harrow, 2016). Despite this, they possess abilities (disproportionate to their knowledge) to shape policies and agendas in these areas (Amarante, 2018). In compensating for this amateurism, philanthropy risks becoming too professional – drawing from professional knowledge and expertise regarding the causes of social issues – and therefore detached from the communities experiencing that need (placing professional knowledge above lived experience or community knowledge) (Salamon, 1987).

A starting point for many moonshot funders is therefore to acknowledge and work to address their own ignorance, building domain expertise. This requires a degree of humility: recognition that one’s professional skills and success do not equate to knowledge of how to address a particular social or environmental cause (Jung & Harrow, 2016), and that a number of other experts already operate in the sector with valuable expertise and experience superior to one’s own (Chen, 2023b).

We settled on determination to learn everything we could about this disease.

John Crowley, Executive Chairman, Amicus Therapeutics

(Crowley, 2023)

Such expertise can help philanthropists to make more informed decisions about who to give to and how, identify other stakeholders to include in the process, and help them target support to solutions more likely to be effective.

Only having one person’s voice (typically the funder’s voice) in decision-making can be a major pitfall, leading to choices or results that do not have the best impact for end beneficiaries, targeting assumed rather than actual needs (Altimus, 2023). Including an array of experts in decision-making processes is therefore vital for successful moonshot philanthropy. Indeed, a goal of moonshot philanthropy is to cultivate a network of experts to shape the moonshot mission, and to help improve the funder’s domain expertise.

The importance of lived experience

For moonshot funders, an essential expert to collaborate with is those with lived experience of the issue at hand: centering the voices of end beneficiaries in decision-making at every level of operation, and partnering with beneficiaries to design and distribute solutions, are essential to creating ‘meaningful’ change (Altimus, 2023; Brooks, 2023). For instance, working with people diagnosed with Parkinson’s Disease – and their families and carers – in the process of better understanding the disease and working towards a cure (Brooks, 2023).

Even if the funder themselves has first-hand experience, different people will experience need differently, necessitating the inclusion of multiple beneficiary representatives to capture this variety (Altimus, 2023). Due to their embedding and elevating of beneficiary voice, moonshot funders have described their approach as justice work rather than charity (Lotito, 2023).

Let the science drive forward but bring the voices in. Then you can think about where are all the places that we can incorporate patient voice and lived experience so that we drive an agenda that is most meaningful.

Cara Altimus, Managing Director, BD²

(Altimus, 2023)

Philanthropy has often been a disempowering relationship for end beneficiaries: philanthropy involves an inherent power imbalance between philanthropists (especially those with a large degree of wealth) and recipients, creating a culture of dependency in which philanthropists can influence how their contributions are utilised (Elsässer et al., 2018; Gilens & Page, 2014; Ostrander, 2007). Embedding end beneficiary voices in the philanthropic process, prevents philanthropists from addressing assumed rather than actual needs, and serves to empower a typically disempowered group. Solutions developed are more likely to be of use, and to yield a higher impact, than had beneficiaries not been included.

Gathering evidence

Through working with an array of expert stakeholders, testing new ideas, and learning from outcomes (successful or otherwise), moonshot philanthropy can build an evidence base to inform future decision-making. This evidence is then widely shared so that more actors and organisations can enter the space and use those insights for collective benefit (LUX, n.d.). Evidence can further be used to get support from other stakeholders (including policy-makers) to help scale up proven solutions.

Funding

The freedom to spend

Tackling ambitious goals, funding high-risk initiatives and embracing the inevitable failures that result, all whilst remaining committed to a single issue for decades, requires a “jaw-dropping amount” of financial input focussed on the defined cause (William Blair, 2021).

The Apollo programme cost an estimated \$25.8 billion between 1960 and 1973 (equivalent to \$179 billion dollars in 2023). At the peak of the programme spending in 1966, 4.4% of the US government’s federal budget was spent on NASA (Dreier, 2022). For JFK, this was a worthwhile cost:

I think we’re going to do it, and I think that we must pay what needs to be paid. I don’t think we ought to waste any money, but I think we ought to do the job.

John F Kennedy, US President

(Kennedy, 1962)

Because of the significant financial costs involved, moonshot philanthropy is typically described as an activity undertaken only by the very wealthy. However, sources differ over how much wealth is enough to be able to engage in moonshot philanthropy and be considered a moonshot philanthropist. The ability to take on considerable risk, and persist with a single issue for decades, is presented as a virtue of ‘extreme’ wealth. Most commonly, therefore, moonshot philanthropy is described as entirely the purview of those with access to billions rather than millions of dollars, that is, the ultra-high-net-worth-individuals (HNWIs) rather than the HNWIs (Chen, 2022; Milken Institute, 2023; Tremayne-Pengelly, 2023; William Blair, 2021). James Chen argues that there is no defined wealth threshold at which someone can engage in moonshot philanthropy. Instead, he suggests that:

Anyone who is ‘independently wealthy’ can take this on

James Chen, moonshot philanthropist

Quoted in: (Redvers, 2022)

By ‘independently wealthy’, Chen refers to those with sufficient private capital that they are not reliant on a salary to sustain them, they have surplus capital which can be readily invested towards a moonshot, and they have no fiduciary obligations to a capital provider which would limit their risk-taking abilities. What is needed to be independently wealthy will differ by context and the associated cost of living.

Though we agree moonshot philanthropy demands a large degree of independent financial capital in order to be able to take on the risks involved in targeting moonshots, we do not limit this approach to the purview of either UHNWIs or HNWIs. Other types of funders – including foundations, nonprofits, companies, and informal groups – have successfully acquired large sums of private capital (be that from an individual donor or from multiple donors and investors) to engage in moonshot philanthropy. For instance, Rotary International – which has the moonshot of eradicating polio – is a public charity which receives contributions from its 1.4 million members worldwide. The Rotary Foundation also accepts public donations. Though it is not funded by a single philanthropic individual, Rotary has a considerable amount of private resources at its disposal, distributing \$183 million in grants in 2021-2022 alone (Rotary International, 2022).

Funding may therefore come from a variety of individual and institutional sources, and in a variety of funding models – both for-profit and not-for-profit. Whilst this may blur the boundaries between private and public purpose, on the other hand it may also attract a wider range of stakeholders including capital providers capable of growing the venture to reach more beneficiaries.

Funding as a catalyst

An alternative perspective on scale is that funding is transformational if it is large relative to the organisations dealing with the problem, or significant in relation to the responses thus far invested in the issue (Pershing Square Foundation, 2016). Thus, moonshot philanthropy does not require billions in funding to be practiced and impactful.

Funding is important not just in terms of its scale but also in terms of what it can do: large scale funding given within a relatively short period of time and to a field that has experienced funding barriers can be an accelerant (Allen & Malekpour, 2023) – catalysing change, removing barriers, stimulating creativity, and creating a sense of urgency that overcomes past ‘stalling’ (Crowley, 2023). Therefore, perhaps even more important than the scale of funding is how that funding is deployed: in line with the above characteristics, moonshot funding is deployed in riskier ways, supporting experimentation, small scale pilots, and projects which will take a long time to yield impact.

Importantly, as spelt out above, funding is just one of the six characteristics of moonshot philanthropy portrayed: proponents acknowledge that financial contribution is a necessary but alone insufficient factor in achieving any ‘moonshot’ goal (Breeze & Chen, 2022). For funding of any size to be catalytic, it may be just as important to focus on the type of funding and the strings attached to it.

Focussed Funding

For some moonshot funders, focussing on a single cause is preferred as they believe it will achieve a greater impact – “asymmetric returns” (Milken Institute, 2023; World Economic Forum, 2022) – than

spreading philanthropy over multiple causes (Chen, 2023b). This focussed approach can be seen as a response to criticisms of the ‘scattergun’ (Cracknell, 2010) approach to philanthropy in which philanthropic actors (particularly foundations) support an array of causes and organisations, instead of strategically targeting resources towards defined goals.

However, other moonshot funders support moonshots across an array of issues and areas. For example, The Audacious Project “is a funding initiative that encourages the world’s greatest changemakers to dream bigger (The Audacious Project, 2022). We shape their ideas into viable multi-year plans and launch them to the world alongside visionary philanthropists.” The Audacious Project has backed ventures across multiple themes, ranging from supporting girls’ education in Sub-Saharan Africa to saving ancient forests, and from criminal justice through clearing conviction records to engineering microbiomes. X, The Moonshot Factory and the MaCarthur Foundation’s Lever For Change are similar initiatives that support ambitious changemakers in multiple areas.

Not all moonshot funders are individual philanthropists. For example, The Audacious Project is run by TED, and X, The Moonshot Factory is a private research and development organisation founded by Google.

A Moonshot Approach

Defining moonshot philanthropy

Based on these identified characteristics – ambitious, bold, collaborative, dedicated, expertise, and funding – we propose the following definition of moonshot philanthropy:

Moonshot philanthropy is a high-risk, long-term approach to philanthropy that combines collaborations with multiple stakeholders and experts with funding for innovations with transformative potential, all in pursuit of ambitious goals.

Potential benefits

Amidst a backdrop of significant challenges, a reduced ability of other stakeholders to address them, and growing critique of some philanthropic efforts, we believe moonshot philanthropy poses unique advantages which resonate with the proposed advantages of philanthropy for large-scale issues like the SDGs.

Philanthropy has always been an integral factor in achieving the SDGs. This is overtly recognised in SDG 17: Partnerships for the Goals, and the role of private resources is becoming more crucial as the funding gap grows and the 2030 target draws nearer.

[Philanthropy] is a well-positioned strategic actor with significant financial resources, technical knowledge and expertise, and an excellent network that can contribute to and scale up sustainable development efforts.

Marcus Neto & Benjamin Bellegy

(Neto & Bellegy, 2021)

However, recent accounts argue philanthropy continues to largely be “left out of SDG conversations” (Kelso, 2023). This may appear incongruent, yet increasing scrutiny and growing distrust of large-scale philanthropy in particular – see for example the BMGF COVID-19 vaccine microchip conspiracy (Siraki & Mohammad, 2023) – have arguably limited the role and scope for philanthropists and philanthropic capital. Moreover, increasing restrictions on civil society such as increased regulation of cross-border funding, have served to limit support and space for philanthropy in recent years (Bellegy et al., 2019).

One approach of many

This is not to say that moonshot philanthropy is the only or best approach to philanthropy possible. A wide array of philanthropic approaches exist, and we believe there is space for many of them. Moonshot philanthropy is most advantageous when addressing large-scale, ambitious ideas, in pursuit of transformative change. It is, by definition, less applicable when the philanthropic goal is to alleviate immediate suffering. For example, moonshot philanthropy is useful when trying to cure cancer, but not to provide immediate emotional support to cancer patients and their families.

Moonshot philanthropy can therefore be utilised as part of a philanthropic portfolio amongst other approaches, deployed as and when it is appropriate.

Our critique of moonshot philanthropy is summarised in Table 2.

Table 2: Moonshot philanthropy in relation to critique of philanthropy, and emerging questions.

Criticism	Moonshot Philanthropy Response	Arising Questions/Potential Concerns
Insufficiency	Targets funding towards a specific objective (rather than fragmented scattergun approach). Large-scale financial input, sustained over significant period of time. Advocacy at policy level to seek policy change and leverage additional support.	Undemocratic influence of philanthropic elites on policy. Global challenges are beyond even the finances of the wealthiest donors.
Particular	Targeting large-scale, ambitious 'moonshots'. If aligned with the SDGs, these are aligned with democratically agreed and globally accepted targets, rather than personal interests of the donor.	Still aligned with and directed by donor interest in a particular cause - the donor describes/defines the moonshot.
Paternal/Power	Focus on 'respectful collaborations' with state and non-state stakeholders. State and philanthropy have complementary strengths and weaknesses. End beneficiaries are embedded in decision-making, elevating voice.	How are beneficiaries empowered? What steps does the philanthropist take to address inherent power imbalances?
Too amateurish/ Too professional	Builds domain expertise of donor who also consults and works with experts and communities. Aims to build evidence base with which all relevant stakeholders can make informed decisions.	Donor gets to decide what expertise matters, e.g. which scientists they engage with. Technocratic: focus on evidence leaves no room for values in decision making.
Risk-averse	Explicitly targeting high-risk, big-bet ventures, embracing failure as part of the process. Risk-taking seen as 'superpower' of philanthropy.	Ability to take risks stems from relative lack of accountability. What about the impact of failure on recipients and beneficiaries? How are risks 'calculated'?
Inefficient	Learning from private sector and learning from failure, adapting theory of change so as to not repeat mistakes or waste resources on venture proven to be ineffective.	Learning from the private sector may accentuate commercialisation, marketisation of nonprofit sector.
Ineffective	Taking considerable risks, learning from failure, collaborating with policy-makers to achieve 'outsized' impact or asymmetric returns (including policy change). May target 'causes' of social or environmental issues.	Considerable expenditure of time and money with no guarantee of success. The same money could help alleviate a lot of suffering immediately if redirected. Collaborations with policymakers seen as unaccountable philanthropists shaping policy.

Conclusions

Moonshot philanthropy applies moonshot thinking – long-term thinking, collaborations, expertise, and funding in pursuit of ambitious innovations with transformative potential – to the field of philanthropy. The result is a philanthropic approach which is characterised by six key features:

- **Ambition:** Pursuing a moonshot (highly ambitious goal), achievement of which will have transformative impact, but is so challenging it seems almost impossible.
- **Boldness:** Actively seeking and taking on risks other stakeholders cannot, and embracing failure as an opportunity to learn and adapt.
- **Collaboration:** Catalysing change by bringing multiple stakeholders together, aligning the ecosystem behind a shared vision.
- **Determination:** Long-term thinking and funding to support ambition, risk-taking, and experimentation needed when pursuing moonshots.
- **Expertise:** Addressing donor ignorance, building and empowering a network of experts (including end beneficiaries), and generating an evidence base of 'what works'.
- **Funding:** Absorbing the large financial cost, focussing funding on defined issues and risky, innovative ideas that may take a long time to yield an impact.

Collectively, these characteristics meet calls for long-term philanthropic funding (e.g. Jordan & Lane, 2023; Ramsbottom, 2021), that takes risks other stakeholders are less able to take (Deboskey, 2019; Simon, 2016), works with stakeholders to align interests and catalyse greater impact (Gehring, 2020), and empowers beneficiaries within decision-making to overcome philanthropic paternalism (Ostrander, 2007).

But many questions remain over whether and how moonshot philanthropy can rise to the challenge of both achieving ambitious goals and using private capital in a way that responds to concerns about the role and impact of philanthropic activity. It is also unclear how these ideas manifest in other contexts: much of the language and ideas of moonshot philanthropy are Anglo-American, based on President JFK's famous speech. How do other countries and cultures implement these ideas?

Our research project aims to explore some of these questions, investigating how moonshot philanthropy is implemented in practice, across different countries and different cause areas, and identifying whether, when, and how, this approach can be of benefit.

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