Russ Roberts. Wild Problems: A Guide to the Decisions that Define Us. New York, NY: Penguin Random House, 2022.

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In the age of big data, the quote often attributed to W. E. Deming seems sage advice: "In God we trust; all others bring data." An obvious corollary would surely be "The more data, the better." Just ask those at OpenAI, whose public release of the artificial intelligence chatbot, ChatGPT, rocked the world in late 2022. ChatGPT and other similar large language models harness massive amounts of data and sophisticated machine learning algorithms to generate text in the style of a human. ChatGPT's capabilities serve as just the latest example corroborating the sentiment that data and algorithms rule the modern world. But Russ Roberts' book, *Wild Problems: A Guide to the Decisions that Define Us*, serves as a reminder to those caught up in the wave of optimism surrounding artificial intelligence that, while some problems lend themselves to algorithmic solutions, the most important problems in life do not.

Roberts divides problems into two mutually exclusive types: wild and tame problems. A wild problem is "a fork in the road of life where knowing which path is the right one isn't obvious, where the pleasure and pain from choosing one path over another are ultimately hidden from us, where the path we choose defines who we are and who we might become. Wild problems are the big decisions all of us have to deal with as we go through life" (2). These, Roberts contends, "resist measurement" and thus cannot be solved by big data and algorithms (4). Tame problems are just the opposite, problems which lend themselves to data and optimization. Unfortunately – or perhaps fortunately – many of life's most important problems are wild problems, like where to work, who to marry, whether to have children, or where to live.

As a paradigmatic wild problem, Roberts outlines Charles Darwin's inner struggle – known from his personal diary – about whether to marry. Darwin first applied cost-benefit analysis to the decision, making a list of pros and cons. Amusingly, though the number and heft of the cons seemingly far outweighed the list of pros, Darwin wrote at the bottom of his list, "Mary – Mary – Mary Q.E.D" (46). *Quod erat demonstrandum*, proven, case closed. So much for the cost-benefit analysis. Darwin's conclusion emphasizes with triplicate force that such wild problems defy his standard scientific treatment.

Roberts gives three primary reasons to explain why wild problems resist the algorithmic cost-benefit approach that Darwin first attempted, referred to by Roberts as "narrow utilitarianism" (51). First, there is what I will call the imagination problem. Darwin could not effectively build a list of pros and cons for a married life because he could not imagine what it would be like for him to be in a marriage. In other words, while he could accrue plenty of data from other marriages, those data were irrelevant or misleading when it came to predicting his own marriage experience.

Second, there is the "vampire problem" (38), which Roberts borrows from philosopher L.A. Paul and her book, *Transformative Experience*.¹ The idea is that, when faced with a decision, one possible choice has the potential to completely transform you and your values. The question, then, is which version of

¹ L.A. Paul, *Transformative Experience* (New York, NY: Oxford University Press, 2014).

you should be preferred when deciding, the current you or the future you. This is cleverly illustrated by Paul's analogy of deciding whether to become a vampire. While (the current) you and most other non-vampires may be offended at the mere thought of capes, narcissism, and drinking human blood for sustenance, as Roberts puts it, "Surveys of vampires reveal a high degree of happiness" (25). As with the imagination problem, the vampire problem leaves Darwin and other decision-makers caught in a conundrum: "Which 'you' should you consider when deciding what's best for you? The current you or the you you will become?" (26) The problem demonstrates that, when encountering wild problems, one cannot automatically rely on data without some careful self-reflection first.

The third and final difficulty regarding wild problems is the problem of overvaluing that which is easily measured and undervaluing the much more subtle but also more important quality of flourishing – something akin to *eudaimonia*. According to Roberts:

Something flourishes by becoming something beautiful and worthy of admiration. We human beings flourish by taking our circumstances and making the most of them in fulfilling our human potential... That means more than simply accumulating pleasures and avoiding pain. Flourishing includes living and acting with integrity, virtue, purpose, meaning, dignity, and autonomy – aspects of life that are not just difficult to quantify but that you might put front and center, regardless of the cost (52).

By this account, Darwin's naïve cost-benefit analysis couldn't possibly guide him well since it could not adequately capture how marriage would contribute both to his and his spouse's flourishing – not to mention their potential children. How could one possibly balance this flourishing with more measurable outcomes like the amount of free time that would be lost? Ultimately, Roberts counsels that we should resist the urge to reduce the nuance of flourishing to a single number, a scalar. Scalars are great for making comparisons, but as Roberts cautions, "the usefulness and accuracy of a scalar depends on how many corners have to be cut to turn a complex set of information into a single number" (18-19).

Roberts employs a battery of poignant examples to illustrate the flaws of narrow utilitarian thinking in such decisions, enumerating along the way many of life's most important wild problems. For example, Roberts uses his own decision to leave the United States and take a job as college president at Shalem College in Jerusalem to highlight the complexities associated with deciding where to live and work. He devotes another chapter to discussing versions of the secretary problem, famous among decision theorists, in which a single "best" candidate (e.g., a secretary, a spouse, etc.) must be chosen from a large pool of choices. Though a mathematically optimal solution to the secretary problem has been known for decades, Roberts elegantly casts doubt on its practicality using the story of Odysseus's wife, Penelope, and her rejection of a large number of suitors while awaiting the return of her husband. Roberts concludes from Penelope's story that "with wild problems, the quest for the best is a mistake," largely because "[t]he word 'best' implies a scalar" while "[a] life partner is the ultimate matrix of characteristics, virtues, vices, pluses, minuses" (97, 99).

In the final third of the book, Roberts loses his thread somewhat and, at times, devolves into selfhelp advice. For instance, a chapter titled, "How to Get Over Yourself" contains valuable, though cliched wisdom about how to envision yourself as a member of an ensemble in the movie of life rather than "as the main character of your own reality show" (115, 121). There was even a chapter devoted to learning from beloved curmudgeon and revered football coach, Bill Belichick. While Roberts manages to tie lessons from Belichick to wild problems by focusing on how to embrace rather than avoid uncertainty in decision making, he nevertheless offers some flimsy advice, making recommendations such as "Embrace the opportunities that make your heart sing" and "Test-drive the car" (164-65). At their best, these chapters offer clever anecdotes to bring to life age-old advice; at their worst, they merely serve paltry platitudes and tired cliches.

Overall, while bits of Roberts' message will strike some as hackneyed, there is undeniable value in such a book being written by an economist (University of Chicago trained, no less) in an increasingly technological age. For those by whom cautions about overreliance on algorithms and utilitarian thought are unneeded, they will still benefit from Roberts's skill at weaving together gems of wisdom and stories from philosophers and writers, famous scientists and economists, a housekeeper, and even the cartoon *Calvin and Hobbes*. To the rest of us (I include myself in this group), Roberts's book serves as a useful corrective to the all-too-common illusion that all things can be "optimized" and instead presents a useful alternative framework for approaching important decisions. Given current societal biases towards identifying "a formula, a calculation that will remove the uncertainty" from all decisions, Roberts's counsel is worth ruminating on for all: "Formulas are simple. That's a feature, but also a bug. Life is complicated" (19).