

Preface to the Czech Edition of *Love and Math*

by [Edward Frenkel](#)

It is a great pleasure to have “Love and Math” published in Czech; this will be the 18th translation of its English original. I visited Prague in the summer of 2018 and very much enjoyed its majestic churches and bridges, museums and open-air cafes. I also learned about the long tradition of bold and unconventional intellectual pursuit in Prague, such as the research in alchemy conducted by Tycho Brahe, Johannes Kepler, and other scientists under the patronage of Emperor Rudolf II. As Carl Jung pointedly remarked, “alchemists, popularly supposed to be searching for gold, were really promising themselves freedom from illusion... and all possible vices.” This story is quite relevant to us today, as our society is undergoing what could be seen as an alchemical transformation from separation and alienation to unity and wholeness. It is my view that mathematics is destined to be a vital element in this process.

Indeed, mathematics plays an increasingly important role in our world, with math-driven information technology invading our lives at an accelerating pace, bringing us new opportunities and unprecedented connectivity but also multiple challenges to our sense of identity and reality, our culture, and even the truth. It’s not surprising that in this environment many people look to mathematics and science for guidance on how to navigate today’s world. For example, people often ask me, “Is life just an algorithm? Is human nothing but a sequence of 0s and 1s? Is love just a chemical reaction?” These are important questions that we have to face.

For this reason, I believe it is essential for all of us to get acquainted with the fascinating ideas of modern math, to see for ourselves what mathematics is really about. Only then can we unlock its energy and transformative power.

Unfortunately, the way mathematics is taught today is akin to teaching students in an art class how to paint a fence or a wall but never showing them the paintings of the great masters. As the result, most of us never get a chance to see the wonders of math — or worse, get frightened by the subject, convinced we’d never be able to understand it. Our ignorance and fear of math can then be exploited by the powers-that-be, who misuse mathematics to their own benefit. Think of mass surveillance, financial shenanigans, multinational

corporations trying to modify and control our behavior using the AI-powered algorithms of social networks, etc. In this brave new world, math has become a powerful weapon that can be used for good and for ill. We need mathematics as our friend, not a foe, so we could reclaim its powers.

However, my goal in this book is not to teach you this or that mathematical concept. Rather, I wish to give you a panoramic view of the subject, help you realize that mathematics is a portal to hidden reality, a key to understanding deep truths about the world around us and about ourselves.

Mathematics creates a bridge between matter and mind, between that which is physically *knowable* about the Universe *and* that which is still unknown or unformed — that which is the province of *imagination*. As an interface between reality and myth, mathematics thus manifests our yearning for unity and wholeness, for the undivided Self.

When we open up to its timeless elegance and wisdom, we no longer see ourselves as little cogs in a big machine. We remember that we are the creators of this world, capable of giving each other beauty and love.

Welcome to this world!