TECHNOLOGY

THE TETRIS EFFECT: The Game That Hypnotized the World by Dan Ackerman. New York: PublicAffairs, 2016. 265 pages. Hardcover; $15.00. ISBN: 9781610396110.

We may stare at computer-powered screens more and more, but in some ways, we think less and less about digital technology. It has become the water in which we swim: critical to our day-to-day life, and an assumed part of our background. Jacques Ellul warned that Christians, of all people, should be conscious of the ideological imperatives of technology; it is hard for us to bear witness to the world when we don't understand the ground we are standing on.

For me, then, the real value of books like Dan Ackerman's *The Tetris Effect: The Game That Hypnotized the World* is that they drill into the everyday work of technology creation, revealing what a messy and human process it is. As consumers, we frequently purchase shiny digital devices, software products, and entertainment titles without giving a second thought to who makes them and how. But the how matters a great deal, and that's true of something as serious as a hadron collider just as much as of a best-selling plaything.

The Tetris Effect is primarily an in-depth biographical history of the men (and it was pretty much all men) who created, marketed, and distributed one of the most profitable and significant video games of all time. Ackerman weaves a tale that traces the game from its creation by Alexy Pajitnov in the Soviet Union in the early 80s, through its diffusion around the world, to its tortuous legal commercial path into mainstream financial success.

The strength of this account is its highly readable prose and the colorful cast of characters that Ackerman assembles. His blow-by-blow account helps us understand that technology never just *appears* fully formed. We get to see how a programmer in a totalitarian dictatorship gets access to subpar computing equipment and finds space to do creative work. We get to see how cross-border business negotiations—a topic that would normally lull readers who are not in the import/export business to sleep—shape what we as consumers have access to and how the process changes the product. And more than anything else, we get to see how contracts, courts and legal maneuvers define our technology. This book is really a legal thriller in disguise.

That having been said, the book certainly has its limitations. Some of these are due to Ackerman's undoubted need to write for a general audience. Practically all video game history writing at this point is biographical, which means the writers follow individual characters, rather than talking about institutions or large-scale cultural factors. This makes for a pleasing read, but it often obscures the fact that humans are social in addition to being individual.

We like the Great Man theory of technology history (e.g., we got the light bulb from Edison, DNA from Watson and Crick, and the Teflon-coated electric grill from heavyweight inventor George Foreman), as it makes for engaging, accessible stories. But it badly oversimplifies the reality of decision making. No Great Man acts alone (the complex narrative here does illustrate this claim), and no Great Man exists without a social context (the book does not sufficiently address this assertion). All that to say that the scholar in me wishes for a few more detours into the nature of early 1980s Soviet bureaucracy or computer architecture, as we only get small tastes of those important topics and they are not quite as accurate as I would like. But on the flip-side, the reader in me often feels that story gets dragged out at points, and I'm pretty sure that's Ackerman's greater concern.

Ackerman also tries to make the book about more than history, and he includes a few interludes on the science of *Tetris*, primarily psychological but also mathematical. These bits are interesting, but they really feel a bit pasted in. He has clearly gathered mounds of data on the historical development of the game, but whether this is fair or not, the other bits feel more as if he looked at one or two sources and wrote the section. Still, if you're interested in the use of *Tetris* to treat PTSD or the number of possible game states for the program, you'll find some worthwhile nuggets here.

The other issue is that Ackerman seems to almost assume the importance of the game he's writing about. There's no question that *Tetris* is a landmark game, and it has had a unique staying power, unrivaled by any other video game from the late 1980s. But there are far more financially successful games, and I would argue that longevity does not automatically confer true cultural impact.

In the end, though, it is the granular and surprisingly interesting account of the various negotiations and investments and product development that is the real value of the book. I don't mean that this will teach readers how the industry works today. *Tetris* came about at a time when the games industry was

still establishing itself and regularizing systems of production. The people negotiating legal rights and systems of distribution and financing, as well as the people actually producing the games were, from the 1970s till the early 1990s, essentially breaking new ground, and today much of that work has become routine. No, the value of an account like this is that it shows the complicated web of interactions necessary to get *any* piece of technology created.

I don't think this is a perfect book for the reasons listed above, but it is worthwhile reading. If Christians want to be able to understand and speak to the digital world, it is important to get a sense of its fluidity and its very human character. Somewhat ironically, I think, Ellul himself, in his powerful call to interrogate the ideological baggage of technology, overlooked the actual conditions of design and production. I think Ellul is right to note the technological imperative of constant development throughout our culture, but when we look at the actual day-to-day activity of technology development, as *The Tetris Effect* does, we can see that ideology gets distinctly muddy, and a cocktail of ideas motivates the people who develop the digital artifacts we use. And it is in the trenches of technological development where grace and truth can make a difference. Understanding that has real impact—maybe even greater than the *Tetris* effect.

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Theology

FREEDOM ALL THE WAY UP: God and the Meaning of Life in a Scientific Age by Christian J. Barrigar. Victoria, BC: FriesenPress, 2017. 252 pages. Paperback; $14.49. ISBN: 9781460293836.

Freedom All the Way Up places the creation of love-capable beings at the core of its considerations: the universe exists to bring into being entities who freely love each other and everything else within it and beyond it. Christian J. Barrigar is an Anglican Pastor who holds two Masters degrees from the University of Toronto and a PhD in philosophy from McGill. He believes that God, in infinite freedom, brought into being at the big bang an initial mixture of physical magnitudes and forces destined over time to produce conscious, meaning-seeking, and significantly free beings capable of self-giving love. This view is not merely wishful thinking. Barrigar draws together a wealth of data that, when supplemented with some provocative yet disciplined theological and scientific speculations, can be forged into a fascinating narrative about how God used the past 13-plus billion years to evolve love-capable entities, what he calls *agape*-capable beings.

"So what is the meaning of life?" asks Barrigar in his first chapter, setting the stage for what his book aims to deliver. We all experience some meaningful events in our lives, but do our lives as a whole possess any ultimate meaning or purpose? Materialist, naturalist, and secular humanist worldviews surely give us motivation to construct meanings for ourselves, but, notes Barrigar, constructed meanings are all biodegradable: thus, living one's life within their terms tends to lead one toward nihilism, the view that nothing has meaning. So, are we condemned to meaninglessness?

Chapter two aims to recover rather than construct meaning, specifically to recover the religious basis for ultimate meaning in a scientifically respectable way. This chapter is the backbone of the whole book in that it lays the theoretical groundwork for the plausibility of a reenchanted universe, that is, a universe that has a grand *telos* rooted in God's intention to program its initial conditions toward the emergence of *agape* (love)-capable beings. It contains a fascinating discussion of a number of technical (largely scientific) topics that may be partially lost on readers innocent of recent scientific theories dealing with the entanglement of the deterministic elements of classical dynamics with the statistical probabilities of quantum mechanics. However, the gist of the chapter, in significantly simplified terms, might be put this way without too much distortion: through the big bang, God combined randomness with order by exploiting nonequilibrium thermodynamics and the law of massively large numbers to produce a long series of entropy-defying self-organizations that eventually and inevitably secure the emergence of beings with sufficient free will for genuinely engaging in *agape*-love relationships.

Chapter Three, "Responding to Materialism," is another large chapter filled with lots of interesting theological and scientific ideas and speculations that merit much more attention than I will be able to give them here. Barrigar first looks at a few of the materialistic accounts of the universe's origin, spending most of his time on "multiverse" proposals, at least one version of which he's willing to consider as subsumable within his theistic framework. The problems with most multiverse scenarios, however, are that they tend to rely upon "no-origin" models, models that posit an infinity of antecedent universes, and thus imply determinism (no possibilities beyond actuality) which alone cannot produce the freedom upon which *agape*-capable beings will need to rely.