

THE VERBATIM ANDRORITHMS COMPILATION

A Comprehensive Reference Document of All Mentions, Definitions, and Variations of the Concept of 'Androrithm' in Gerd Leonhard's Book Technology vs. Humanity

In *Technology vs. Humanity*, futurist Gerd Leonhard argues that our rapid progression into exponential technologies represents a profound cognitive and existential challenge. At the heart of his manifesto is the critical distinction between **algorithms** (the machine-calculable, logical rules of technology) and what he coins **androrithms** (the uniquely human essences, idiosyncrasies, and unquantifiable traits). This document compiles every single mention of the term 'androrithm' (including its adjective 'androrithmic') verbatim from the book, organized chronologically by chapter. In doing so, it serves as a pure source-grounded tome for understanding Gerd's defense of our essential humanness.

Note: Typographical and ligature glitches resulting from the original OCR process (such as '\$' representing 'fi', '%' representing 'fl', '!' representing 'Th', and ''' representing ligatures like 'ff') have been systematically restored to reflect the original printed text of the book accurately.

CHAPTER 1: A PROLOGUE TO THE FUTURE

In the book's opening prologue, Gerd introduces the concept as a counter-weight to the totalizing grip of big data. This first mention sets up the central philosophical tension of the work.

CONTEXT: *Pondering the ultimate convergence of man and machine and whether data will conquer humanness.*

“But regardless, will we live in a world where data and algorithms triumph over what I call androrithms, all that stuff that makes us human? (I will define exactly what I believe an androrithm is later in this book.)”

— Gerd Leonhard, Chapter 1: A Prologue to the Future, Page 14/15

CHAPTER 2: TECH VS. US

Chapter 2 provides the first deep conceptual and formal definition of an androrithm, introducing it under the explicit subheading '*Algorithms vs. Androrithms*'. Gerd frames these essences as the clumsy but indispensable qualities we must protect at all costs.

The Core Conceptual Definition of Androrithm

“Being human is largely about those things that we cannot—for the foreseeable future—compute, measure, algorithmically define, simulate, or completely understand. What makes us human is not mathematical or even just chemical or biological. It involves those things that are largely unnoticed, unsaid, subconscious, ephemeral, and unobjectifiable. These are the human essences that I like to call androrithms that we absolutely must keep even if they appear to be clumsy, complicated, slow, risky, or inefficient compared to nonbiological systems, computers, and robots.”

CONTEXT: Warning against the technological impulse to 'fix' human inefficiencies and the current trend of discarding androrithms.

“We should not attempt to mend, fix, upgrade, or even eradicate what makes us human; rather, we should design technology to know and respect these differences—and protect them. Unfortunately, the slow but systematic reduction or even discarding of androrithms—those elusive traits that make us human—has already started all around us. For example, social networks allow us to create our own profiles as we see fit, and revel in our fabricated identities, rather than wrestle with the one we actually have in real life, aka in our meatspace.”

— Gerd Leonhard, Chapter 2: Tech vs. Us, Page 30

CONTEXT: Discussing how screens are disintermediating deep, face-to-face human interactions.

“That might appear good but could become very negative if taken too far. While of course there are overlaps between our social-network and real-life identities, the face-to-face, embodied socializing quality of androrithms is now increasingly replaced with artful screens and clever algorithms, such as for online content curation and matchmaking.”

— Gerd Leonhard, Chapter 2: Tech vs. Us, Page 30

CHAPTER 3: THE MEGASHIFTS

Within his discussion of the ten Megashifts—specifically during Megashift 1 (Digitization) and Megashift 4 (Disintermediation)—Gerd uses the concept of androrithms to explain why non-digitizable human traits will soon grow exponentially in value.

CONTEXT: Explaining why non-digitizable traits will become scarce and precious commodities.

“This assumption of continued and pervasive penetration of technology points towards a future where what cannot be digitized and/or automated (see Automating Society, chapter 4) could become extremely valuable. As discussed in chapter 2, these androrthms capture essential human qualities such as emotions, compassion, ethics, happiness, and creativity. While algorithms, software, and artificial intelligence (AI) will increasingly “eat the world” (as venture capitalist Marc Andreessen likes to say), we must place the same value on androrthms—those things which make us uniquely human.”

— Gerd Leonhard, Chapter 3: The Megashifts (Megashift 1: Digitization), Page 34

CONTEXT: Stressing that as technology commoditizes goods, our focus must pivot to human flourishing.

“As previously expensive products and services become cheap and abundant, androrthms must take center stage with technology if we are to remain a society that is concerned with human flourishing. We certainly would not want to go from software eating the world to software cheating the world!”

— Gerd Leonhard, Chapter 3: The Megashifts (Megashift 1: Digitization), Page 35

CONTEXT: Calling for construction, not just disruptive platform disintermediation.

“We also need to build true human values and a holistic ecosystem that generates lasting value for everyone; not just more algorithms but also replenished androrthms. We must take a holistic view to really make a difference.”

— Gerd Leonhard, Chapter 3: The Megashifts (Megashift 4: Disintermediation), Page 41

CHAPTER 5: THE INTERNET OF INHUMAN THINGS

In Chapter 5, Gerd tackles the Internet of Things (IoT). He uses the term androrthm as a litmus test, warning that a purely mechanistic data-driven network risks converting humans themselves into mere things.

CONTEXT: An introductory question previewing the chapter's existential warnings about IoT.

“Have we paused to ask ourselves the difference between algorithms and what makes us essentially human—what I call the androrthms?”

— Gerd Leonhard, Chapter 5: The Internet of Inhuman Things, Chapter Preview, Page 65 / ToC i

CONTEXT: Reflecting under the heading 'Androrthms and the precautionary principle' on the risks of total datafication.

“What will keep the new masters of the universe from turning not just processes and hardware into data, but also turning humans into things, either by accident or by design? The technology industry’s delight with the IoT and its obvious benefits notwithstanding, this is a risk we should not take without exercising extreme caution and consideration.”

— Gerd Leonhard, *Chapter 5: The Internet of Inhuman Things, Subheading Reflection, Page 65*

CHAPTER 9: TAKING THE HAPPENSTANCE OUT OF HAPPINESS

Chapter 9 contains the highest density of references to the concept. Gerd links androrthms directly to eudaemonia (deeper happiness, well-being, and flourishing) and introduces the adjective **androrthmic** to describe values and experiences that resist mathematical optimization.

CONTEXT: Pointing out the human tendency to trade complex androrthmic processes for easy algorithmic shortcuts.

“We tend to ignore androrthms in favor of algorithms because we like shortcuts and simplifications.”

— Gerd Leonhard, *Chapter 9: Taking the Happenstance out of Happiness, Page 115*

CONTEXT: Stating why human experiences have a far more enduring impact on our happiness than physical possessions.

“Experiences are based on those unique qualities that make us human—our androrthms.”

— Gerd Leonhard, *Chapter 9: Taking the Happenstance out of Happiness, Page 119/120*

CONTEXT: Critiquing technology companies for ignoring humanistic factors in the rollout of connected sensors.

“While these are clever ideas, the current schemes for realizing the IoT are almost completely void of attention to human considerations, androrthms, and ethical concerns.”

— Gerd Leonhard, *Chapter 9: Taking the Happenstance out of Happiness, Page 121*

CONTEXT: Expressing concern that exponential machine thinking leaves no space for human mysteries.

“Will we eventually be a species completely devoid of consciousness, mystery, spirituality, and soul, simply because there’s no room for these androrithms in this coming machine age?”

— Gerd Leonhard, Chapter 9: *Taking the Happenstance out of Happiness*, Page 122

CONTEXT: Making the core distinction between optimized health-tracking and genuine human wellness.

“Well-being isn’t algorithmic—it is androrithmic, based on complex things such as trust, compassion, emotion, and intuition.”

— Gerd Leonhard, Chapter 9: *Taking the Happenstance out of Happiness*, Subheading: ‘Human well-being should be the goal’, Page 124

CONTEXT: Warning against utilizing mathematical models or machine intelligence to optimize emotional outcomes.

“The complex androrithmic values must remain the domain of human beings, both because we are better at creating nuanced expressions of them and because direct engagement with those problems is key to developing eudaemonia—deeper happiness.”

— Gerd Leonhard, Chapter 9: *Taking the Happenstance out of Happiness*, Page 131

CHAPTER 12: DECISION TIME

In the final chapter, Gerd delivers a call to arms, demanding that we dedicate as much funding and attention to androrithms as we do to technological algorithms. He cements the preservation of androrithms as a foundational pillar of his 'Team Human' manifesto.

CONTEXT: *A final warning on the imbalance between technological investment and humanistic self-reflection.*

“The danger is that if we don’t spend as much time and resources on the androrithms (those qualities that make us human) as we do on the algorithms, not only will technology end up running our lives, but we will also be forced, tricked, or otherwise cajoled into becoming technology ourselves. We shall have become “the tools of our tools.””

— *Gerd Leonhard, Chapter 12: Decision Time, Page 158*

CONTEXT: *Formulating the core manifesto pledge of 'Being on Team Human'.*

“To allow androrithms, those uniquely human things such as imagination, chance, mistakes, and inefficiencies, to continue to matter, even if they are undesired by or incompatible with technology;”

— *Gerd Leonhard, Chapter 12: Decision Time, 'Being on Team Human' Manifesto, Page 166*