# Noesis

**The Journal of the Mega Society**
**Issue #203, July 2018**

# Contents

# About the Mega Society

The Mega Society was founded by Dr. Ronald K. Hoeflin in 1982. The 606 Society (6 in $10^6$), founded by Christopher Harding, was incorporated into the new society and those with IQ scores on the Langdon Adult Intelligence Test (LAIT) of 173 or more were also invited to join. (The LAIT qualifying score was subsequently raised to 175; official scoring of the LAIT terminated at the end of 1993, after the test was compromised). A number of different tests were accepted by 606 and during the first few years of Mega's existence. Later, the LAIT and Dr. Hoeflin's Mega Test became the sole official entrance tests, by vote of the membership. Later, Dr. Hoeflin's Titan Test was added. (The Mega was also compromised, so scores after 1994 are currently not accepted; the Mega and Titan cutoff is now 43—but either the LAIT cutoff or the cutoff on Dr. Hoeflin's tests will need to be changed, as they are not equivalent.)

Mega publishes this irregularly-timed journal. The society also has a (low-traffic) members-only e-mail list. Mega members, please contact the Editor to be added to the list.

For more background on Mega, please refer to Darryl Miyaguchi's "A Short (and Bloody) History of the High-IQ Societies"—

http://archive.today/K32e

—the Editor's High-IQ Societies page—

http://www.polymath-systems.com/intel/hiqsocs/index.html

—and the official Mega Society page,

http://www.megasociety.org/

*Noesis* is the journal of the Mega Society, an organization whose members are selected by means of high-range intelligence tests. Jeff Ward, 13155 Wimberly Square #284, San Diego, CA 92128, is Administrator of the Mega Society. Inquiries regarding membership should be directed to him at the address above or:

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Opinions expressed in these pages are those of individuals, not of *Noesis* or the Mega Society.

# Editorial

## Kevin Langdon

After a year and a half of technical difficulties *Noesis* is active again.

We start with a short piece by Ronald Yannone on Litton's "Problematical Recreations," which published hundreds of challenging problems over a 12-year period.

This issue also includes Part Eight of the long interview with Rick Rosner by Scott Douglas Jacobsen, from the *In-Sight* journal site—

http://in-sightjournal.com/

—where the interview originally appeared.

This section of the interview concentrates on the ideas of ethics and free will.

Next there's a short article by the Editor on the acceleration of the world human population doubling time and its possible consequences.

And finally we have three poems by May-Tzu (Richard May).

Once again we're overdue for our annual Mega Society election. If any member would like to run for Administrator, Internet Officer, or Editor, please let me know.

And we always need material—from Mega members and others—for *Noesis*. If you've submitted something for publication and have not heard back from me one way or the other please let me know.

**Cover:** Cloud tops from the International Space Station (NASA).

## Searching for Litton's 12-year series "Problematical Recreations"

**Ron Yannone**

Using the ***Aviation Week & Space Technology*** and ***Electronic News*** magazines as their advertisement base, Litton Industries, Inc. introduced its ***Problematical Recreations*** series on February 15, 1960. Each issue contained a problem statement, an advertisement and the solution to the previous week's problem through to the solution to their 579th problem in its 580th issue in March 29, 1971.

I was elated when I saw that people can access the 1960 – 1971 series online at the ***Aviation Week & Space Technolog****y* site. As one opens an issue, by a few "clicks" going backward in the issue one sees an alphabetical listing of advertisers for the issue and looking up Litton one can see the specific page(s) their articles appear on, then use the quick cursor at the bottom of the screen go directly to the page(s) of interest.

From the ***Aviation Week & Space Technology*** site itself, we read the following:

Aviation Week traces its roots back to August 1, 1916. The 100-year digital archive is a collection of every issue, article and ad since 1916. The archive houses 4,500 issues of Aviation Week and is a gold mine of history for the aviation industry.

With robust searching capabilities, the Aviation Week archive serves as a place to find educational and inspirational content of the aerospace industry.

Anyone can access the Aviation Week archive and search by year, event, company, personality or author when you visit archive.aviationweek.com

I hope you as a reader, and maybe interested person in mathematically-addictive problems and illustrations by the creative Ed Kysar for the woodcut drawings accompanying each problem, that you will take a little time to review some of these bafflers. In looking through each I did not see a problem 151 (maybe a missed printing) – as the answer to 150 is in 152 issue answer. Other than that one still has 578 challenging episodes to explore.

Sincerely yours, Ron Yannone
April 22, 2017

# Interview with Rick Rosner by
# Scott Douglas Jacobsen (Part Eight)

## ABSTRACT

**Part eight of eleven, comprehensive interview with Rick G. Rosner, ex-editor for the Mega Society (1991-97), and writer. He discusses the following subject-matter: fundaments of the universe in bits or links, Pierre-Simon Marquis de Laplace and Napoleon Bonaparte's famous conversation, axiology, aesthetics, ethics, metaethics, comparative/descriptive ethics, applied ethics, normative ethics, moral psychology, moral truth, moral antirealism with Gorgias, Søren Kierkegaard, Friedrich Nietszche, and *The Will to Power*, moral realism, and their concomitant sets and subsets, ethics cataloguing with "Deontological," "Teleological," and "Virtue," and an information-based perspective on these; a framework with concepts for theoretical considerations about the existence of free will at the global and local scales in addition to their reflection in informational cosmology; revision of the prior formalisms to discuss informational cosmology and informational ethics; definition of the key terms "informed will" and "targeted thinking" with *Canadian Oxford Dictionary* (2nd Edition) descriptions of "informed," "will," "targeted," and "thinking"; and informed will and targeted thinking in relation to everyday and outlier morality, with examples from recent reading.**

Keywords: axiology, aesthetics, deontological, ethics, comparative/descriptive ethics, applied ethics, Friedrich Nietszche, Gorgias, informational cosmology, informed will, Mega Society, metaethics, moral antirealism, moral realism, moral psychology, moral truth, Napoleon Bonaparte, normative ethics, Pierre-Simon Marquis de Laplace, Rick G. Rosner, Søren Kierkegaard, targeted thinking, teleological, universe, virtue, writer.

**84. Fundaments of the universe; deals with bits or links – information. Units of sufficient individuation of the universe with self-consistency and information processing – and by implication complexity – might not implicate ethics. No explicit connection there; a possible tacit linkage.**

**Akin to Pierre-Simon Marquis de Laplace's – likely apocryphal – determinist universe statement to Napoleon Bonaparte, in Bonaparte's question about God in the equations of Laplace, Laplace said, "Je n'avais pas besoin de cette hypothèse-là," or in the English translation of the statement, "I had no need for that hypothesis."**

**An information-based view of processing reflects a meaningless, clockwork mechanism conceptually synonymous with the Laplacian determinate – or even indeterminate, meaningless quantum – world, with everything lacking inherent, even derived, moral truths.**

**Axiologists might enlighten the shroud of these problems. Indeed, information-based ethics might implicate ethics with some background and thought.**

Axiologists study *value*.  Value divided into aesthetics and ethics.  Aesthetics studies beauty. Ethics studies moral conduct.  In general agreement among ethical axiologists, ethics splits five ways: metaethics, comparative/descriptive ethics, applied ethics, normative ethics, and moral psychology.

Metaethics studies the nature of moral theories and judgments.  Descriptive ethics studies beliefs about morality.  Applied ethics studies professional and public affairs related to morality.  Normative ethics studies ethics in practice.  Moral psychology studies the nature and development of moral agency.

Ethics begins with one basic metaethical query, "Do moral truths exist?"  Without such a question and answer, why bother arguing for moral truths and, therefore, ethics?  A field needs content; that question with an answer gives it.

Ethics derives further from answers to *the* fundamental metaethical question. One answer negates moral truths; another affirms them.   If one answers, "No," moral truths do not exist; if one answers, "Yes," moral truths exist.  The former is called antirealist ("No"); latter called realist ("Yes").  Each provides complete conceptual and functional negation or affirmation – "No" and "Yes," respectively.

"Conceptual" means "in theory." "Functional" means "in practice."

One *could* answer with "probability," "undecidability," or "meaningless." If "probability," this implies conceptual and functional affirmative, but not to the degree of "Yes"; if "undecidable," this implies functional negation; if "meaning-less," this implies conceptual *and* functional negation, but not to the explicit degree of "No."

Of course, a thought, behavior, and consequences of thoughts and behavior might have objective moral content in spite of an individual respondent's answer.

"Probability" argues for moral truths in thoughts about and behavior with respect to them. The "Undecidability" answer argues for present unknowability of moral truths in thought and, therefore, lack of explicit ethical dimension to behavior.  The "Meaningless" answer argues unknown moral truths with permanent conceptual unknown and functional negation status.  This leaves definite negation and definite affirmation.

Definite negation of moral truth includes one ethics set: nihilism.  Greek sophist Gorgias (485 BCE-380 BCE) equates to the most stated ancient exemplar of moral antirealism.  Some argue for Socrates (469 BCE-399 BCE) as a nihilist based on the *Method of Elenchus* or the method of questioning. A modern instance can be seen in the person of Søren Kierkegaard (1813-1855).

With another common instance adumbrated in the writing of Friedrich Nietszche (1844-1900), he writes in *The Will to Power* (1901), "I describe what is coming, what can no longer come differently: *the advent of nihilism.*"  In short,

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exemplars (Gorgias and Kirkegaard) and ideological forecasters (Nietzsche) lived in history. Not something to be easily dismissed.

Nihilism argues that nothing contains intrinsic moral value. Troubles relate to antirealism. It denies truth. Truth intersects with logic. Logic cannot apply here. No truth to prove or disprove with respect to the internal validity of arguments. No objective or subjective truth. Same for ethics. Moral antirealists have the same problem. No objective or subjective *moral* truth.

If the universe lacks truth – and by implication moral truth – then thoughts, behaviors, and their consequences lack inherent immoral status. If logic implies truth, and if moral realism implies moral truths, then logic applies to moral truths, and therefore logic can examine the truth or falsity of moral arguments.

Let's work through the difficult circumstance in pragmatic terms: if one 1) kidnaps and tortures a young girl/boy; 2) steals a cookie; or 3) saves a life from collision with a New York taxi, the moral antirealist would consider these equivalent in their empty state with respect to moral content.

They have distinguishing factual content, but equivalent moral content. Different variables, associations, and likely outcomes. Even so, there is no distinction among them in the calculation because there's no distinguishing moral value among "1)," "2)," or "3)." Therefore, one cannot calculate among these except to equate them in null moral terms and calculate their null value.

No need for ethics in the first place with such a position. Why bother arguing over ethics? Moral antirealism provides zero content for the discipline. In a way, it's the *empty set* of ethics. A near-complete analogue.

A definite affirmation of moral truth includes many ethics supersets: Act Utilitarian, African, Anarchist, Aristotelian, Atheist, Biological, Buddhist, Business, Casuist, Christian, Communication, Confucian, Consequentialist, Daoist, Deontological, Environmental, Epicurean, Evolutionary, Feminist, Gender, Global, Hedonist, Hindu, Humanist, Islamic, Jewish, Machine, Military, Objectivist, Personal, Political, Postmodern, Professional, Publication, Relational, Research, Role, Role Utilitarian, Sexual, Shinto, Social, Stoic, Teleological, and Virtue. (Insert the term "ethics" at the end of each: "Act Utilitarian Ethics," "African Ethics," and so on.) Each affirms some model of moral realism. Limits in depth, scope, and duration of use, but gives specifications of moral domains and, thus, an ethics position – a moral realist stance.

In and out of these ethics supersets, we find sets of and subsets of ethics in principles, codes, and laws: the *American Constitution*, animal care, autonomy, beneficence, carefulness, *Charter of Medina* (*Constitution of Medina*), *Code of Hammurabi*, *Code of Li k'vei*, competence, computer and information, confidentiality, *Declaration of Helsinki* (1964), *Declaration Toward Global Ethic*, discipline-based conduct, *English Bill of Rights*, *Exodus' Ten*

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*Commandments*, *Great Laws of Manu*, *Hippocratic Oath*, honesty, human rights protection, *International Charter on Medical Professionalism* (First published in 2002), justice, *Justinian Code*, least harm, legality, *Magna Carta*, *Mosaic Law*, *Napoleonic Code*, non-discrimination, *Nuremberg Code* (1947), objectivity, openness, respect for colleagues, respect for integrity, respect for intellectual property, responsible mentoring, responsible publication, *Ṣaḥīh al-Bukhārī* (Sunni Islam), *Sharia* and *Fiqh*, social responsibility, *T'ang Code* (including *Tánglǜ shūyì* – commentary on it), *The Golden Rule*, and so on, in an enormous array spanning millennia of creation, dissolution, modification, and general development.

The moral realist set argues thoughts and behaviors contain intrinsic or extrinsic moral value. These sets relate to positive considerations of ethical ontology, i.e. ethics talks about reality or moral reality – moral truths exist. Correct/right/moral statements correspond to moral reality; incorrect/wrong/immoral statements do not correspond to moral reality.

Convenient for logicians and ethicists. Logic's intersection with truth permits logical analysis of moral statements, premises, conclusions, arguments, or sets thereof.

Moral realist systems operate in three traditional terms: "Deontological," "Teleological," and "Virtue." "Deontological" or duty-based aims for rights and duties of agents. "Teleological" or goods-based aims for the good life. "Virtue" or civic-based aims for development of virtuous people.

How does an informational vantage point invite new interpretations of classical, and modern consensus, perspectives on metaethics, descriptive ethics, applied ethics, normative ethics, and moral psychology? What new emergent properties, fields, or arguments organize themselves from this information-based view?

Many philosophical or cosmological systems imply a set of worlds which can exist (or do exist, in some elsewhere). Many-worlds theory, at least as popularly understood, says that every possible world exists. This could be seen as an argument against ethics, since, if every possible thing happens, if every possible choice, good or bad, is made, what's the difference?

So, I would first stipulate that our world – the series of moments we exist in – is more real than other possible worlds. I don't know whether other possible worlds necessarily exist somewhere, but our world is the one we experience directly – the world in which our choices have consequences.

Now for some semi-informed assumptions.

There could be a ladder of armature-spaces containing mind-spaces extending towards infinity. ("Towards infinity" requires several assumptions – that armature-spaces tend to be bigger than the mind-spaces they contain, that every mind-space necessitates an armature-space, and that there's no limit to the size of armature- and mind-spaces.)

There's no Prime Mover who's biased towards existence. Existence conforms to principles of consistency. Existence is permitted and compelled by a kind of bootstrapped math. There's not some omnipotent entity who wants things to exist. (But good luck eliminating this possibility, as every level of metaphysical explanation requires another, deeper level to explain why the explanation is justified.) Not being part of any conscious entity that *can* want, the principles of existence are neutral. But the principles are highly permissive of existence (again, without intent).

Entities that exist can be biased towards wanting to continue to exist. Evolved entities are often driven to continue to exist, and values associated with continuing existence are built into their civilizations. Advanced entities may design sophisticated, special-purpose entities which do not include a drive for indefinite existence, but such entities would likely be part of larger social/technological structures which have at some level a drive for continued existence.

Some entities which have developed the understanding and technology to take control of their own drives may choose not to include the desire for indefinite existence. But the (presumed) existence of entities at all levels of complexity approaching infinity should indicate that a desire for continued existence isn't inconsistent with arbitrarily large entities.

Every entity has a history which includes reasons why it was brought into existence. Such reasons can range from what we would consider natural, initially random action which has brought about persistent processes and entities – evolution, for instance – to intentional creation of entities by civilizations with high technology. Whether natural or technological or somewhere in between, the creation of entities should have a reasonable probability of being associated with a drive for the continued existence of something – individuals, a species, a civilization, or the universe itself. We can imagine nihilist civilizations dedicated to promoting chaos and non-existence (and science fiction has), but such civilizations seem likely to be much less prevalent than existence-favoring civilizations.

For more than half a century, people have been growing increasingly uneasy about the potential for artificial intelligence to enslave or wipe out humanity. The mathematization of consciousness (as part of informational cosmology) – the procedure for mathematically modeling mind-spaces – is an essential part of developing advanced AI. We have to know that the motivations we design and those which may arise spontaneously are consistent with benevolent AI behavior which preserves our world and allows humans at all levels of development to choose their destinies. We can't be sure what AIs are thinking unless we can model it.

While the principles of existence, lacking consciousness and will, don't have an agenda, existence in general is biased towards continued existence, and the ethics of existence should be preservational. Let entities which want to continue to exist, continue to exist, unless there is a compelling reason otherwise.

Of course, we have barely an inkling of the nature of existence, and all of this is subject to complete revision as we learn more. For the past couple of hundred years, science has increasingly implied that existence is meaningless, that the universe just is. This may not always be the case. Existence may provide its own durable justifications.

**85. If free will exists, its options exist as a total set or space of logical possibilities of choices, C.  Free will means *any* selection in the total set or space of logical possibilities of choices (C).  Why "logical possibilities"?  Informational cosmology operates on self-consistency; "logical possibility" means maximal possible definition of "self-consistency."**

**If the universe operates in self-consistency or logical possibility, choices of the universe operate within logical possibilities; a universe operates in self-consistency or logical possibility; therefore, choices of universe operate within logical possibilities.  In short, a universe exists within constraints, and, by implication, constrains internal choices of net system and subsystems.**

**C exists in the space provided by the universe from the start, $T = 0$, through every positive addition in time. Each whole cross-section of the universe in time would have a unique configuration of C.  In short, informational cosmology's "final answer" amounts to choice from the time universe says, "Go."  No way out of choice with the "blue touch paper" lit and kept alight through the arrow of time.**

**Consciousness-endowed subsystems of the universe would partake of this space, C, with a subset or subspace of logical possibilities of choice, $C_n$.  Each unit of sufficient individuation in a universe with self-consistency and information processing would have a set or space of logical possibilities of choices ($C_n$). Each whole cross-section of a single unit of sufficient individuation in time would have a unique configuration of $C_n$.**

**Undoubtedly, we take into account finite self-consistency and information processing of each unit of sufficient individuation, i.e. mental and physical limitations of each consciousness-endowed subsystem in the universe. Less physical and mental possibilities reduces the magnitude of $C_n$ out of C; more physical or mental possibilities increases the magnitude of $C_n$ out of C.**

**Ethics dictates correct choices through affirmation of optimal choices and negation of suboptimal choices in C and $C_n$.  Demarcation between optimal and suboptimal based on ethical code or algorithm, E, inserted into C and $C_n$.  Interpolation of E transforms C and $C_n$ into a moral set or space.  C becomes $C^E$; $C_n$ becomes $C_n^E$. Thus unifying universe-based/objective and individual-based/subjective general ethics.  "General ethics" without specification of particular ethics (more later).**

**If informational cosmology lacks infinities, it describes finites; informational cosmology lacks infinities and, hence, describes finites; if informational cosmology describes the universe and finites, the universe lacks infinities and operates in**

**finites; informational cosmology describes the universe and finites; therefore, the universe lacks infinities and operates in finites.**

**Furthermore, if the universe operates in finites, C contains finite elements; if C contains finite elements, $C^E$ contains finite elements. The universe operates in finites. Hence, C and $C^E$ contain finite elements.**

**Even further, if C contains finite elements, $C_n$ contains finite elements; if $C_n$ contains finite elements, $C_n^E$ contains finite elements. C contains finite elements. Thus, $C_n$ and $C_n^E$ contain finite elements.**

**Free will and ethics implies moral choice. Together – free will and ethics – imply correct/right/moral and incorrect/wrong/immoral choices in $C^E$, at the global scale, and in $C_n^E$, at the local scale. Therefore, this means individual free will and ethics over time (over one or more selections) creates moral accountability.**

**What kinds of free will might exist in the universe – at global and local scales? How do you define them? How do they relate to the C? How about $C^E$ and $C_n^E$? In short, how do you *pin* the start of informational ethics?**

Protagoras said, "Man is the measure of all things," meaning that there is no absolute truth. When it comes to existence, I disagree with this. I believe that we have an infinitesimal probability of not existing in the forms in which we seem to exist. More simply, the odds that this is the Matrix are just about zero, and even if this were the Matrix, its existence would imply the existence of a substantial material world (that contains the Matrix, or contains the fake world that contains the fake Matrix – at some point, you run into the Real).

But it's harder to disregard a suspicion that ethics is a human construct with human-created rules and values. So let's pin down ethics. We evolved as persistent organisms – organisms which want to continue to exist and which serve the continuing existence of life by surviving and reproducing. If we're playing the game of persistence – and we've been built to (not on purpose by a goal-oriented entity, but as a consequence of purposeless-but-persistent processes) – an entire moral/ethical structure can be built from the game. To win the game is to maximize existence according to a set of existence-valuing principles. People can argue about the specific principles, but the general idea is not to wreck the world and not to wreck people and perhaps to make progress. It's the opposite of nihilism.

Since we humans are discussing and determining what the existence-valuing principles should be, you could argue that morals and ethics are a human-built system which doesn't reflect absolute truth. However, life that arises anywhere within the universe faces the same game, the same issues of how to protect life and civilization and its world. The universe itself is likely part of some system which has rules to preserve existence.

Given the one principle that persistent beings want themselves and/or the world in which they exist to continue to exist, moral and ethical systems will have great general

similarities (involving safeguarding existence). So what we're left with of Protagoras is specific precepts of morals and ethics being specific to humans. General ethical and moral principles and existence itself aren't just human constructs.

**86. You mean objective *and* universal ethics derived from informational cosmology: informational ethics. Prior considerations remain valid: C means the same; $C^E$ means "existence-valuing principles"; $C_n$ means "informed will"; and $C_n^E$ means "targeted thinking."**

**New $C^E$ provides an absolute referent of correct or incorrect ethics. An absolute referent for morality. Or the greatest possible criterion for all logical possibilities of ethics. Logic implies truth, truth implies logical possibilities, logical possibilities operate in both informational cosmology and informational ethics, and therefore ethics examinable by logic for truth or falsity, or degree thereof.**

**Where "good" means "maximizes persistent existence" and "evil" means "does not maximize persistent existence," one can scale ethics. $C^E$ bestows a referent and grounds for logical analysis of every ethical system, code, creed, law, and principle in proportion to their respective correspondence with $C^E$. More $C_n$ allows greater $C_n^E$. More $C_n$ and $C_n^E$ provide possibility for more accurate correspondence with $C^E$, and therefore, by implication, greater responsibility due to greater moral accountability. A *Moral Hierarchy* implied with $C^E$ at the top.**

**Does this hold merit to you? How might we refine or extend this argument? If you do consider a general moral, intellectual, spiritual, or emotional progression or development, how do you view development from the basic to most advanced at the individual and collective levels?**

I should note that I live in LA, where we're more concerned about spotting celebrities at Rite-Aid than personal growth. On a daily basis, most of my efforts to be a better person occur behind the wheel. (In LA, your morality is revealed by your driving. Many Audi drivers will have to do a lot of explaining to St. Peter.) And I often judge other people's moral development by their posted comments on internet stories.

I like to imagine that our increasing interconnectedness leads to increasing moral development – an ethical Flynn Effect – though internet trolling indicates otherwise.

I picture people in general as having moral characteristics – levels of niceness, truthfulness, reliability, etc. – distributed in a bell curve, with most people being close to average and some outliers in positive and negative directions. When I was checking IDs in bars, I estimated that about one person in 90 would lie to me. This seemed indicative of most human behavior – generally good, with opportunistic failures (which you shouldn't consistently expect but should be prepared to protect yourself against – it's like defensive driving – always be alert for terrible behavior without expecting it in every instance). When dealing with jerks in bars, the bell curve model helped me keep my temper. I'd think, "Here's somebody who's way beyond the mean for jerkiness.

Statistically, that's what you'd expect occasionally. Should I fly off the handle at him, or wait for someone who's even more of an outlier?" (I'd usually keep my temper.)

Having a bell curve model of behavior means that I don't spend much time thinking about hierarchies of individual goodness. People will be people – I just try to steer clear of the horrible ones. I spend more time thinking about societal goodness because, writing for a late-night show, I got in the habit of paying attention to politics, and America currently has a bunch of terrible people in and around politics. You have a bunch of people upset about tyranny and the end of America, and these people, when they willfully and very effectively bend the truth, seem like the biggest threat to America.

But crappy politicians probably aren't the biggest threat to America as it is. The biggest threat and biggest opportunity is change. In 10 years, America will change as much as it did in the previous 20; in 20 years, America will change as much as it did in the previous 60; in 30 years, America (and the world) will change more than it did in the previous century. Near-future science fiction presents a range of possibilities for America. The laziest SF presents stories of apocalyptic strife, some with America split into several nations. More well-thought-out work presents a daunting assortment of negative and positive changes. But no near-future fiction presents an America that's unchanged.

Which leads to what I think is the most pressing ethical concern of our time – managing change. The wages of ignorance have always been death, but even more so now and into the future. Politicians often talk about the world we're leaving for our grandchildren. But they never mention that our grandchildren will be very different from us, and if we want to build a bridge to them we can't be dipshits about technology. More technically-educated people and nations will be in the driver's seat. (Actually, no one will be in the driver's seat, since cars will be driving themselves.)

Technical literacy should be viewed as an ethical responsibility. Ignorance about science and technology screws you, your family, and your friends. In America, there's a strong correlation between states where people are more likely to have anti-scientific views and states with higher mortality rates.

**87. You leave some definitions loose: "informed will" and "targeted thinking."** *Canadian Oxford Dictionary* **(2ⁿᵈ Edition) defines the terms in a reliable fashion. "Informed" means "to give or supply information or knowledge"; "will" means "the faculty by which a person decides or is regarded as deciding on and initiating action"; "targeted" means "identify or single out (a person or thing) as an object of attention or attack"; and "thinking" means "using thought or rational judgment; cogitation." What does "will" mean in an information-based ethics? How might this relate to personal valence ("emotional value") of an individual consciousness?**

Everything a decision-making entity does is based on information – the information which informs its decision (the data) in combination with the information which describes its decision-making apparatus (the hardware, software, and settings). You can't defy the informational basis of decisions – you can only strive to understand the basis (though your decision to strive is itself based on information). Will can be understood as

a decision (I will work on this paper until I pass out) or as a tendency in decisions (I will always go to the utmost extreme when working on something I deem to be of value). As such, will comes from a combination of hardware, settings, and data. A thinking entity can know itself but cannot escape that its decisions are rooted in information which is encoded in the material from which it is made.

**88. How do informed will and targeted thinking influence everyday and outlier morality?**

I expect informed will to generally be more good and ethical than reflexive responses. Informed will is decision-making based on thorough thinking. Often my immediate decision isn't as brave or kind as a reconsidered decision. I'll walk right past someone asking for money then be forced by my conscience to double back. Of course, doing bad can also be the result of thorough thinking. But if you consider most people, I'd guess that the average move between knee-jerk reaction and thorough thinking is towards the positive. It helps if there are societal, peer and family structures in place which support positive values. Just finished *Zone of Interest*, by Martin Amis, which tells about the daily lives of the people who ran Auschwitz. Everyone was highly invested in the evil they were doing and could find unlimited support for their evil from their government.

# World Human Population Doubling Time

**Kevin Langdon**

| Year | Population (Millions) | Doubling Time (Years) |
|---|---|---|
| 4000 BC | 7 | |
| | | 1000 |
| 3000 BC | 14 | |
| | | 1000 |
| 2000 BC | 27 | |
| | | 1000 |
| 1000 BC | 50 | |
| | | 500 |
| 500 BC | 100 | |
| | | 500 |
| 1 AD | 200 | |
| | | 1000 |
| 1000 AD | 400 | |
| | | 750 |
| 1750 AD | 791 | |
| | | 150 |
| 1900 AD | 1650 | |
| | | 65 |
| 1965 AD | 3322 | |
| | | 40 |
| 2005 AD | 6520 | |

Population figures from: https://en.wikipedia.org/wiki/World_population

    The table above was easy to create because many of the numbers in the Wikipedia article were spaced conveniently close to factors of two from one another.

The experts expect that human population will top out around 10 billion by about 2100. I doubt it. The explosion of human population is driving huge increases in industrial activity and that activity is severely straining resources, poisoning the ecosystems we rely on, and exacerbating territorial battles, on the scale of individuals and of nations.

Will human population continue to double to the point of a major catastrophe that will kill off billions? The world's governments are ignoring the problem; even the Chinese have backed off of their one-child policy and there's very little discussion of this vitally important subject, despite the wildfires burning around the world on an unprecedented scale.

Prosperity does bring a lower birth rate but economic growth is nowhere near keeping up with the explosion of births in many of the poorest countries.

Nothing short of compulsory limitations on births will halt the march of the human lemmings over the population cliff, but there's no political will to do it. I foresee big trouble for humanity before the end of this century.

# Dark Energy

**May-Tzu**

**The universe is just a rounding error.**

# The Silicon Scream

**May-Tzu**

**Seeing—**
**Infinite recursive paradoxes**
**in a cognitive hall of mirrors.**

# Braille Shadows

**May-Tzu**

**Buddha mind blossoms.**
**Spring morning dew scatters light.**
**Koan petals fall.**