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#### “Your scientists were so preoccupied with whether or not they could, they didn’t stop to think if they should.”

#### – Dr. Ian Malcolm

#### When we talk about space, we need to talk about the philosophy of Paul Virilio: a sort of critic of technology. Virilio shows us how the appropriation of space is merely another front of speed: the eternal acceleration of technology.

**Bormann and Sheehan**, PhD in International Politics and Former government official and military officer - [Master of Science in Foreign Service](http://en.wikipedia.org/wiki/Master_of_Science_in_Foreign_Service) from the [Georgetown University School of Foreign Service](http://en.wikipedia.org/wiki/Georgetown_University_School_of_Foreign_Service), **09** (Natalie, Michael, “Securing Outerspace,” 2009, <http://goo.gl/n3ea3>)

In any case I believe that the anxiety of our era has to do fundamentally with space, no doubt a great deal more than with time. Time probably appears to us only as one of the various distributive operations that are possible for the elements that are spread out in space. (Foucault 1986: 23) ‘Space is under threat’ (Virilio 1999: 33). Paul Virilio is probably best known for his critique of speed, technology and materialism. As Kellner (1999: 103) contends, Virilio is one of the ‘most prolific critics of the drama of technology in the contemporary era, especially military technology’. Whereby ‘drama’ is indicative of the ways in which military technology alters and fabricates modes of communicating, targeting, fighting and killing. What makes Virilio interesting for this chapter is the significant conceptual connection he makes between and across the spheres of technology, space, speed and war, and with a particular eye on the ways in which technology is transforming the contemporary world and our relation to it, and how military imperatives are coercively underpinning societal development. He maintains, for instance, that the relentless logic of speed plays a detrimental part in the militarisation of (urban) space, the organisation of territory, and therewith the transformation of disparate domains of our everyday life (Virilio 2000). Reference is made here to Virilio’s contention that what we ‘see’ of space is presented to us in fragmented images, visions, narratives and stories produced and told at a particular time in place. In relation to the militarisation of space and habitat, Virilio asserts that from a military perspective (and its subsequent narrating of images, visions and stories), space is seen and produced as a habitat that is to be defended, conquered, occupied, secured and colonised. For Virilio, it is all about speed, whereby ‘speed rules over space’. The idea is most poignantly expressed in his concept of dromology as the study and impact of increasing speed and transport and communications on the development of land-use (Virilio 2000). In this chapter I seize upon Virilio’s insights on the space/technology relationship but want to begin by shifting the focus slightly away from speed and informational systems to the one of space itself, the question of what happens to space and the role of spatial inventions. I want to probe on Virilio’s notion of ‘critical space’; as the author contends, space finds itself in a critical situation, just like one would speak of critical times, or of a critical situation. Space is under threat. Not only matter is threatened, space too is being destroyed. But is being rebuilt at the same time. (Virilio 1999: 33) Following Virilio, space becomes critical by virtue of performances that generate a sense of instantaneity and ubiquity - in the context of this chapter this is reflected by means of military technology and weaponry in outer space: we are now enmeshed in a practice of warfighting that can be easily projected and simulated, without delay, and onto various dimensions (sea, air, exoatmospheric). A virtual - yet ‘earth bound’ - battlefield can be mapped onto outer space, where weapons are placed a long distance away - yet the proximity and instantaneity of fighting against an ‘other’ appears possible at all times and from anywhere.

#### As you accelerate, you cause accidents. Just as the invention of the plane gave us flight, there was the simultaneous invention of the plane’s accident: crashes. Worse, accidents beget accidents – this is why technological advancement is so scary. It’s recursive.

Nassim M. **Taleb 07**. Nassim N. Taleb is the author of The Black Swan: The Impact of the Highly Improbable. He is a former derivatives trader who became a scholar and philosophical essayist. Taleb is currently a distinguished Professor of risk engineering at New York University’s Polytechnic Institute.

Recursive here means that the world in which we live has an increasing number of feedback loops, causing events to be the cause of more events (say, people buy a book because other people bought it), thus generating snowballs and arbitrary and unpredictable planet-wide winner-take-all effects. We live in an environment where information flows too rapidly, accelerating such epidemics. Likewise, events can happen because they are not supposed to happen. (Our intuitions are made for an environment with simpler causes and effects and slowly moving information.) This type of randomness did not prevail during the Pleistocene, as socioeconomic life was far simpler then.

#### Private Entities aren’t unique either, and can’t solve. The system of speed and capital we live under renders all private individuals and entities mere cogs in the technological machine.

**Duncan ‘11** – Cameron Robert, Modernity or Capitalism?: Technology in Heidegger and Marx [<http://summit.sfu.ca/item/13783>]

The fetishization of commodities takes place under capitalism, whereby: Objects of utility become commodities only because they are products of the labour of private individuals who work independently of each other...the labour of private individuals manifests itself as an element of the total labour of society only through the relations which the act of exchange establishes between the products, and, through their mediation, between the producers. In this sense, the abstraction of labour is analogous to the abstraction of all social relations to material relations as well as the abstraction of nature to raw material for technological use. Enframing in modern technology requires someone to order this process forward. Heidegger sees this dispensation of being as a problem. Enframing, he asserts, “does not simply endanger man in his relationship to himself and to everything that is. As a destining, it banishes man into a kind of revealing which is an ordering.” Ordering is a removal from the practical activity in the world, and a fundamental character of humanity itself. The simplest example of this is the worker who tends to the machine. Labour is consumed in modern industry because machines do more of the ordering. Marx notes: The collective working machine, which is now an articulated system composed of various kinds of single machine, and of groups of single machines, becomes all the more perfect the more the process becomes a continuous one...in other words, the more its passage from one phase to another is effected not by the hand of man, but by machinery itself.

#### Acceleration into space, no matter by who, will end with the integral accident – it represents the final bridge of our current technological nightmare.

##### Adams, Masters Political Science, 03 (Jason, Popular Defense in the Empire of Speed: Paul Virilio and the Phenomenology of the Political Body,” November 2003)

#### It certainly is true that the content of the ecological accident has undergone a transformation in the past several decades of technical acceleration; whereas in the past the green ecology of the terrestrial body was threatened only by 'local' accidents such as the Exxon Valdez oil spill or the perennial forest fires in the Pacific Northwest, with the invention of extraterrestrial and circumterrestrial transportation and transmission technologies, the threat of a truly global accident of grey ecology supplants this, unleashing a danger as has never been seen before. As Virilio notes, "if according to Aristotle, 'the accident reveals the substance', the invention of the substance is also the invention of the 'accident""-~a~s has certainly been the case in regard to technology over the course of the twentieth century, when the technical substance of mass production also became the technical accident of mass destruction, from Chernobyl to Bhopal to today, when global populations are increasingly plugging their vital infrastructures into singular networks such as the Internet or international electric grids, or when the Pentagon is sending nuclear materiel into orbit several miles over the surface of the earth. As Virilio notes, what this means is that "whereas in the past the local accident was still precisely situated...the global accident no longer is, and its fall-out extends to entire continents. Waiting in the wings is the integral accident, which may some day soon, become our only habitat".127 The incessant drive toward increasingly dynamic technologies is precisely what is leading toward the future accident which will outstrip the excesses of everything we have known until now, because "if to invent the substance is, indirectly, to invent the accident, then the more powerful and efficient the invention, the more dramatic the accident. Eventually the fateful day will come when the progress of knowledge becomes intolerable, not just because of its misuse but also because of its effects - the very power of its negativity".'28 Thus the greatest threat to the territorial body today is that in the move beyond the accidents of land, sea and air, the accidents of cyberspace and outer space increasingly threaten to bring the accident to the global level for the first time; indeed, "this is what is meant by the 'integral accident', the accident which integrates us globally, and which sometimes even disintegrates us physically.

#### Space isn’t unique, since we view it through the lens of our terrestrial problems, acceleration into it will merely accelerate them to critical mass.

**Dickens and Ormrod 16** [(Peter Dickens, Senior Research Associate in the Department of Sociology at the University of Cambridge, member of the Red-Green Study Group in London, James S Ormrod, Principal Lecturer in Sociology at the University of Brighton), “The Future of Outer Space”, *The Palgrave Handbook of Society, Culture and Outer Space*] TDI

For Virilio, there was such a homology between the technologies of war, the image of space as a battlefield and the political discourses about space that the future seemed equally foreclosed. He makes the claim that any space is constituted ‘from the outside’ (cited in Bormann, 2009, p. 80). That is to say, it is perceived on the basis of that which precedes it. Bormann is therefore able to argue that ‘nothing about outer space is “out there”, what we get to know about outer space is always socially, spatially and locally embedded’ (p. 80). Bormann, following Virilio, seems to believe that this is especially true of the vacuum of outer space: [O]ther than the view there is no physical or physiological contact. No hearing, no feeling in the sense of touching materials, with the exception of an actual Moon landing. Thus the conquest of space, of outer space – isn’t it more the conquest of the image of space? (Virilio & Ujica, 2003, cited in Bormann, 2009, p. 84) Bormann reaches the pessimistic conclusion that ‘the perpetuation of outer space as a sphere of permanent war and its claims to weaponization will soon make no alternative possible’ (p. 84). This is the product, in the large part, of her assumption that ‘[w]hat we get to know about the space of outer space is dominated by information provided through the possibilities (and limits) of military technology’ (p. 81).

#### Ever since the nuclear age, there has been only one possible end to the integral accident: extinction. I cannot tell you how it will happen, or when, but the pattern of speed proves it will with acceleration into space.

**Virilio 4** – Director of the Ecole Speciale d' Architecture in Paris (Paul, Editor is Steve Redhead – Professor of Legal Studies in the Faculty of Social Science and Humanities at the University of Ontario Institute of Technology and PhD, “The Paul Virilio Reader”, Columbia University Press, ISBN: 0-231-13482-7, pg. 256-257) MGM

Proof, if proof were needed, that far from promoting quietude, our industrialized societies throughout the twentieth century have essentially developed disquiet and the major risk, and this is so even if we leave out of account the recent proliferation of weapons of mass destruction… Hence the urgent need to reverse this trend which consists in exposing us to the most catastrophic accidents produced by the techno-scientific spirit, and to establish the opposite approach which would consist in exposing or exhibiting the accident as the major enigma of modern Progress. Although some car companies carry out more than 400 crash tests annually in the attempt to improve the safety of their vehicles, this still does not prevent television channels from continually inflicting road-death statistics on us (not to mention the tragedies which see the present repeatedly plunged into mourning). It is certainly high time (alongside the ecological approaches that relate to the various ways in which the biosphere is polluted) for the beginnings of an eschatological approach to technical progress to emerge – an approach to that finitude without which the much-vaunted globalisation is in danger of itself becoming a life-size catastrophe. Both a natural and a man-made catastrophe, a general catastrophe and not one specific to any particular technology or region of the world, which would far exceed the disasters currently covered by the insurance companies – a catastrophe of which the long-term drama of Chernobyl remains emblematic. So as to avoid in the near future experiencing an integral accident on a planetary scale, an accident capable of incorporating a whole host of incidents and disasters in a chain reaction, we should right now build, inhabit and plan a laboratory of cataclysms – the technical progress accident museum – so as to avoid the accident of substances, revealed by Aristotle, being succeeded by the knowledge accident – that major philosophical catastrophe which genetic engineering, coming on the heels of atomic power, bears within it.

#### The accident is the most important impact in this debate, because it is the proverbial Black Swan: a highly unprecedented event that dictates everything about our world. Because of how often it is ignored in traditional academia, the debate space is where we have to bring it to light.

Nassim M. **Taleb 07**. Nassim N. Taleb is the author of The Black Swan: The Impact of the Highly Improbable. He is a former derivatives trader who became a scholar and philosophical essayist. Taleb is currently a distinguished Professor of risk engineering at New York University’s Polytechnic Institute.

A small number of Black Swans explain almost everything in our world, from the success of ideas and religions, to the dynamics of historical events, to elements of our own personal lives. Ever since we left the Pleistocene, some ten millennia ago, the effect of these Black Swans has been increasing. It started accelerating during the industrial revolution, as the world started getting more complicated, while ordinary events, the ones we study and discuss and try to predict from reading the newspapers, have become increasingly Inconsequential. This combination of low predictability and large impact makes the Black Swan a great puzzle; but that is not yet the core concern of this book. Add to this phenomenon the fact that we tend to act as if it does not exist! I don't mean just you, your cousin Joey, and me, but almost all "social scientists" who, for over a century, have operated under the false belief that their tools could measure uncertainty. For the applications of the sciences of uncertainty to real-world problems has had ridiculous effects; I have been privileged to see it in finance and economics. Go ask your portfolio manager for his definition of "risk," and odds are that he will supply you with a measure that excludes the possibility of the Black Swan—hence one that has no better predictive value for assessing the total risks than astrology (we will see how they dress up the intellectual fraud with mathematics). This problem is endemic in social matters. The highly expected not happening is also a Black Swan. Note that, by symmetry, the occurrence of a highly improbable event is the equivalent of the nonoccurrence of a highly probable one. The central idea of this book concerns our blindness with respect to randomness, particularly the large deviations: Why do we, scientists or nonscientists, hotshots or regular Joes, tend to see the pennies instead of the dollars? Why do we keep focusing on the minutiae, not the possible significant large events, in spite of the obvious evidence of their huge influence? And, if you follow my argument, why does reading the newspaper actually decrease your knowledge of the world? It is easy to see that life is the cumulative effect of a handful of significant shocks. It is not so hard to identify the role of Black Swans, from your armchair (or bar stool). Go through the following exercise. Look into your own existence. Count the significant events, the technological changes, and the inventions that have taken place in our environment since you were born and compare them to what was expected before their advent. How many of them came on a schedule? Look into your own personal life, to your choice of profession, say, or meeting your mate, your exile from your country of origin, the betrayals you faced, your sudden enrichment or impoverishment. How often did these things occur according to plan?

### “Plan”

#### In this vein, the Aff represents an anti-accident politics that rejects the Huxley-esque complacency our current, accelerating political sphere has been debased to. The formation of this movement is my plan.

##### Virilio 07 – (Paul, Professor of Philosophy at the European Graduate School in Saas-Fee, Switzerland, “The original accident,” trans. by Julie Rose, Polity, available online DH)

This is why we urgently need a second political movement focused on the integral accident that would complement the first - an eschatological party, this one, parallel to the ecological party officially recognized today. Like the highs and lows of stereophony, this twin ecopolitical movement would create the effect of a field, a raised profile now indispensable to the right as well as the left in our democratic assemblies, since, as we all sense, this classic political representation will not be able to survive in the absence of a genuinely geopolitical definition of ecology. In other words, unless it takes account not only of the famous 'imperative of responsibility' of elected representatives, but also the 'precautionary principle' and the principle of vigilance of scientists and other decision-makers running the show. In this sense the crisis or, rather, the accident in 'representative democracy' has nothing short-lived about it, since the televiewer-citizen can't be governed like an unregistered student or a nineteenth-century reader, his vision of the world being literally completely different. This is something that certain ecologists have just cottoned on to, such as the Griinen in Germany, who are now bent on coming up with a better interpretation of the notion of globalization itself - an ecological as much as an economic variety. 1 'The civilized world should take seriously the growing threat of Terror on a catastrophic scale,' declared George W Bush, on 15 March 2002. Seriously, certainly, but not tragically, otherwise we would end up lapsing into nihilism and leaping, without any transition, fi:om the euphoria of the consumer society to the neurasthenia of a society of dereliction about which Karl Kraus was clearly apprehensive when he wrote, in 1914: 'Shrouded in the neurasthenia of hate, all is truth.' 2 How can we fail to realize the extent to which, today, the game of politics has been defused and debased by this 'new idea' of so-called happiness carried by the looming shadow of the Revolution of the Enlightenment- but also by that of the Terror? How can we fail to see how powerless we are to tackle the major hazards and great disruptions looming large, in the face of which our hedonistic culture is basically defenceless? Geopolitical ecology would also mean this: facing up to the unpredictable, to this Medusa of technical progress that literally exterminates the whole world.

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#### Therefore, the Role of the Ballot in this debate should be to embrace uncertainty, the driving force behind the accident. By prioritizing outliers over the predictable, we match the nature of the accident and can begin to discourse on preventing it.

Nassim M. **Taleb 07**. Nassim N. Taleb is the author of The Black Swan: The Impact of the Highly Improbable. He is a former derivatives trader who became a scholar and philosophical essayist. Taleb is currently a distinguished Professor of risk engineering at New York University’s Polytechnic Institute.

This is a book about uncertainty; to this author, the rare event equals uncertainty. This may seem like a strong statement—that we need to principally study the rare and extreme events in order to figure out common ones—but I will make myself clear as follows. There are two possible ways to approach phenomena. The first is to rule out the extraordinary and focus on the "normal." The examiner leaves aside "outliers'' and studies ordinary cases. The second approach is to consider that in order to understand a phenomenon, one needs first to consider the extremes— particularly if, like the Black Swan, they carry an extraordinary cumulative effect. I don't particularly care about the usual. If you want to get an idea of a friend's temperament, ethics, and personal elegance, you need to look at him under the tests of severe circumstances, not under the regular rosy glow of daily life. Can you assess the danger a criminal poses by examining only what he does on an ordinary day? Can we understand health without considering wild diseases and epidemics? Indeed the normal is often irrelevant. Almost everything in social life is produced by rare but consequential shocks and jumps; all the while almost everything studied about social life focuses on the "normal," particularly with "bell curve" methods of inference that tell you close to nothing. Why? Because the bell curve ignores large deviations, cannot handle them, yet makes us confident that we have tamed uncertainty. Its nickname in this book is GIF, Great Intellectual Fraud.