

## **If You Are Rethinking Your Ethics**

**in line with developments in digitalisation, artificial intelligence, superintelligence and singularity**

In this article, subtitled ‘The Ethical Singularity Comedy’, we will be exploring two central questions which also serve as the key sections of the text:

Which ethical premises underlie predominant forces behind the development of digitalisation, artificial intelligence, superintelligence and singularity?

What challenges to current thinking and ethics could the supervisory and executive boards of organisations around the world feel obliged to address and resolve at the level of corporate ethics before it is too late?

## **The Ethical Singularity Comedy**

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## Introduction

According to Joseph Carvalko, who is Professor of Law, Science and Technology at Quinnipiac University of Law,

... Artificial Intelligence (AI) and bio-synthetic engineering will be perfected to the degree that androids will closely resemble humans and biosynthetically engineered humans will resemble androids. (Carvalko, 2012)

In a similar vein, David Pearce, co-founder of what was originally named the World Transhumanist Association, writes:

Posthuman organic minds will dwell in state-spaces of experience for which archaic humans and classical digital computers alike have no language, no concepts, and no words to describe our ignorance. Most radically, hyperintelligent organic minds will explore state-spaces of consciousness that do not currently play any information-signalling role in living organisms, and are impenetrable to investigation by digital zombies. In short, biological intelligence is on the brink of a recursively self-amplifying Qualia Explosion – a phenomenon of which digital zombies are invincibly ignorant, and invincibly ignorant of their own ignorance. Humans too of course are mostly ignorant of what we're lacking: the nature, scope and intensity of such posthuman superqualia are beyond the bounds of archaic human experience. Even so, enrichment of our reward pathways can ensure that full-spectrum biological superintelligence will be sublime. (Pearce, 2012)

Citing from an interview with David Hanson, founder of Hanson Robotics based in Hong Kong, John Thornhill writes in the Financial Times:

By developing “bio-inspired intelligent algorithms” and allowing them to absorb rich social data, via sophisticated sensors, we can create smarter and faster robots, Mr Hanson says. That will inexorably lead to the point where the technology will be “literally alive, self-sufficient, emergent, feeling, aware”.

He adds: “I want robots to learn to love and what it means to be loved and not just love in the small sense. Yes, we want robots capable of friendship and familial love, of this kind of bonding.”

“However, we also want robots to love in a bigger sense, in the sense of the Greek word agape, which means higher love, to learn to value information, social relationships, humanity.”

Mr Hanson argues a profound shift will happen when machines begin to understand the consequences of their actions and invent solutions to their everyday challenges. “When machines can reason this way then they can begin to perform acts of moral imagination. And this is somewhat speculative but I believe that it’s coming within our lifetimes,” he says. (Thornhill, 2017)

Projections such as these trigger fundamental thoughts about the human condition which we will go on to explore below. The idea of autonomous humanoids and biosynthetically engineered humans also raises significant questions about the legitimacy and responsibility-ownership of their actions and suggests the need for, or the advent of, paradigmatic changes in the fields of law and ethics, e.g.

- Will ‘human rights’ have to be modified to rights for all forms of ‘autonomous intelligence’ – and, if so, how should the latter be defined?

- 81 - How should vulnerable groups be pro-  
 82 tected by law from the dangers of enter-  
 83 ing into affectional connections with ro-  
 84 bots, including sex robots?
- 85 - Will a specific legal status need to be  
 86 created for autonomous robots as having  
 87 the status of ‘electronic persons’?
- 88 - Will judges and juries have to sit in front  
 89 of an AI artefact and justify their deci-  
 90 sions to it before – or even after – sen-  
 91 tence is passed on a human-being?

92 More fundamental still are questions in the  
 93 field of ethical premises such as

- 94 - Which or what type of institution or in-  
 95 telligence is legitimised – or legitimises  
 96 itself – to pose and answer the above  
 97 questions, and based on what premises  
 98 of legitimisation? - or will ‘legitimacy’  
 99 become an obsolete concept and, if so,  
 100 what will emerge around the space  
 101 which it currently occupies?
- 102 - How can responsibility for value-crea-  
 103 tion or value-damage be assigned in sit-  
 104 uations where ‘emergent’ behaviour  
 105 through what humans presume to have  
 106 been collusion between e.g. an unquan-  
 107 tifiable number of AI-artefacts has  
 108 arisen, i.e. behaviour which could be  
 109 proven to have been unpredictable for  
 110 any of the programming bodies, even if  
 111 the colluding artefacts could be identi-  
 112 fied?
- 113 - Also, if ‘slight contacts’ (Chodat, 2008)  
 114 (p. 25) with other human or non-human  
 115 minds can be identified as the veritable  
 116 sources of value-creation or value-dam-  
 117 age, how should ownership or perpetra-  
 118 tion be assigned?
- 119 - In other words, how will the space  
 120 evolve which is currently occupied by  
 121 concepts such as ‘agency’, ‘ownership’,  
 122 ‘perpetrator’ and ‘value’?

123 As remarked by Amartya Sen in ‘The Idea  
 124 of Justice’:

125 *Judgements about justice will have to*  
 126 *take on board the task of accommodat-*  
 127 *ing different kinds of reasons and evalu-*  
 128 *ative concerns. (Sen, 2009) (p. 395)*

129 or, returning to the field of human morals:

- 130 - Should we, certain humans or organisa-  
 131 tions in a subset of human society, con-  
 132 sider undertaking the creation of human-  
 133 oids to whom we, or others, would be –  
 134 or might feel – morally committed be-  
 135 fore we provide adequate care for the  
 136 millions of co-humans who are suffering  
 137 to the point of death from the lack of  
 138 basic requirements such as food, water  
 139 and shelter?
- 140 - Will the financiers of developments in  
 141 artificial intelligence (henceforth ‘AI’)  
 142 and superhuman intelligence (hence-  
 143 forth ‘SI’) be made answerable and lia-  
 144 ble by their own artefacts for their prov-  
 145 enly immoral allocation of resources and  
 146 profits – which they generated through  
 147 exploiting the data of their consumers?

148 Putting the last questions temporarily to one  
 149 side, we note that the Civil Law Rules on Robot-  
 150 ics of the European Union includes the commis-  
 151 sioning of a ‘Charter on Robotics’ which should  
 152 not only address ethical compliance standards  
 153 for researchers, practitioners, users and design-  
 154 ers, but also provide procedures for resolving  
 155 any ethical dilemmas which arise (European  
 156 Parliament, 2017). We will return to issues sur-  
 157 rounding the content of the Civil Law Rules on  
 158 Robotics in the second section of this paper. At  
 159 this point, we note that the wording of the docu-  
 160 ment makes it apparent that the European Parlia-  
 161 ment has recognised that the development of AI  
 162 is leading jurisprudence and ethics into un-  
 163 charted territory at a very high speed; not only  
 164 this, and crucially for the focus of this paper, the  
 165 chosen wording shows attentiveness to the con-  
 166 sideration that the European Union cannot allow  
 167 the legal regulations and societal ethics con-  
 168 tained in its Charter of Fundamental Rights  
 169 (European Union, 2017) to put its members’ na-  
 170 tional economies at a disadvantage in the global  
 171 race towards digital supremacy. In other words,

172 ‘business ethics’ may factually override ‘societal  
173 ethics’ in determining the veritable ethics of the  
174 development of digitalisation, AI, machine intel-  
175 ligence and machine learning (both of which we  
176 will henceforth subsume for the purposes of this  
177 paper under ‘AI’) and also of SI. For a more de-  
178 tailed treatise of the concept of ‘business ethics’  
179 – including the ‘whole ethical package’ within  
180 which business-managers factually function –  
181 and the position of ‘ethical neutrality’ which un-  
182 derlies the writing of this article, the reader is re-  
183 ferred to a previous paper entitled ‘Interethical  
184 Competence’. (Robinson, 2014)

185 In an article published by Deloitte University  
186 Press, estimates for worldwide spending on cog-  
187 nitive systems are cited to reach \$31 billion by  
188 2019, and the size of the digital universe is esti-  
189 mated to double each year to reach 44 zettabytes  
190 by 2020 (Mittal et al., 2017). Even if these esti-  
191 mates turn out to be only partially accurate, the  
192 facts are that the world economy and society in  
193 general are undergoing change of unprecedented  
194 dimensions and that only a minority of bodies  
195 have any significant measure of influence and  
196 control over these evolutionary changes. As one  
197 example, national economies now find them-  
198 selves left with no choice but to ensure that the  
199 infrastructure and expertise is in place to ensure  
200 that their population can sustainably enjoy ubiq-  
201 uitous connectivity of the most up-to-date tech-  
202 nical standards. Another example lies in the fact  
203 that India and China have gained a key competi-  
204 tive advantage by currently graduating at least 15  
205 engineers for each one who graduates in the US;  
206 in 2020, the European Union will lack an esti-  
207 mated 825’000 professionals with adequate dig-  
208 ital skills to avert global economic insignificance  
209 for the Union (European Parliament, 2017).

210 As we will discuss in more detail in Section 1 of  
211 this paper, economic motives, competition and  
212 various forms of aspiration towards supremacy  
213 lie at the core of contemporary AI-development-  
214 ethics. Assuming that business and other forms  
215 of ethics do, and will, factually override societal  
216 ethics, there will be a faster and more fundamen-  
217 tal impact on the way in which most businesses  
218 are run than is generally anticipated.

219 According to former Professor of History at In-  
220 diana University, Jon Kofas:

221 *Multinational corporations see the op-*  
222 *portunity for billions in profits and that*  
223 *is all the motivation they need to move*  
224 *forward full speed, advertising AI re-*  
225 *search and development even now to*  
226 *prove that their company is decades*  
227 *ahead of the competition. (Kofas, 2017)*

228 A further set of motives and competition under-  
229 lying contemporary digital developments is of a  
230 politically and ideologically hegemonial nature.  
231 Increasingly, the opinion is being voiced that AI  
232 is turning into the next global arms race, i.e. the  
233 race for supreme control and the protection of  
234 sovereignty so as, at least, not to be controlled by  
235 others. This means that the ‘ethics of global su-  
236 premacy’ could factually override both business  
237 ethics and societal ethics – that is, for as long as  
238 ‘artificial ethics’ or superintelligence do not fac-  
239 tually take the upper hand.

240 In an open letter to the United Nations on 21<sup>st</sup>  
241 August 2017, with one hundred and seventeen  
242 notable C-level signatories, the Future of Life In-  
243 stitute declares that it:

244 *... welcomes the decision of the UN’s*  
245 *Conference of the Convention on Cer-*  
246 *tain Conventional Weapons (CCW) to*  
247 *establish a Group of Governmental Ex-*  
248 *erts (GGE) on Lethal Autonomous*  
249 *Weapon Systems*

250 and warns:

251 *Lethal autonomous weapons threaten to*  
252 *become the third revolution in warfare.*  
253 *Once developed, they will permit armed*  
254 *conflict to be fought at a scale greater*  
255 *than ever, and at timescales faster than*  
256 *humans can comprehend. These can be*  
257 *weapons of terror, weapons that despots*  
258 *and terrorists use against innocent pop-*  
259 *ulations, and weapons hacked to behave*  
260 *in undesirable ways. We do not have*  
261 *long to act. (Future of Life Institute,*  
262 *2017)*

263 In a BBC Interview, Professor Stephen Hawking  
264 makes reference to the darker side of influence,  
265 control and hegemony, where further codes of  
266 ethics are active:

267 *the Internet has now turned into a com-*  
268 *mand centre for criminals and terrorists.*  
269 (BBC, 2014)

270 In relation to an intervention into the workings  
271 of the dark web by the Federal Bureau of Inves-  
272 tigation, the US Drug Enforcement Agency, the  
273 Dutch National Police and Europol, Dimitris  
274 Avramopoulos, European Commissioner for Mi-  
275 gration, Home Affairs and Citizenship, remarks:

276 *The Dark Web is growing into a haven*  
277 *of rampant criminality. This is a threat*  
278 *to our societies and our economies that*  
279 *we can only face together, on a global*  
280 *scale. The take-down of the two largest*  
281 *criminal Dark Web markets in the world*  
282 *by European and American law enforce-*  
283 *ment authorities shows the important*  
284 *and necessary result of international co-*  
285 *operation to fight this criminality.*  
286 (Europol, 2017)

287 Out of the reach of public accessibility are also  
288 the exact developments which are being made in  
289 the field of genetics, including major projects to  
290 discover the genetic basis of human intelligence  
291 in institutions such as the Cognitive Research  
292 Laboratory of the Beijing Genomics Institute.  
293 The little information which is indeed publicly  
294 available can leave us wondering about the ex-  
295 tent to which national or racial eugenic motives  
296 and policies might be involved or could indeed  
297 already be shaping which super-species will one  
298 day be posing and answering questions such as  
299 those laid out above, i.e. not artificial ethics or  
300 superintelligence, but ‘super-species intelli-  
301 gence’ or other forms of phenomena which have  
302 not yet emerged.

303 If the ethics of global supremacy and power are  
304 indeed an inevitable motive behind the exploita-  
305 tion of contemporary exponential global eco-  
306 nomic and technological developments, if finan-  
307 cial and intellectual resources do indeed remain

308 key elements of this form of power and if the eth-  
309 ical super-dice do thereby remain factually un-  
310 turned from the 20<sup>th</sup> and far into the 21<sup>st</sup> Century,  
311 then the consequences of inequalities of influ-  
312 ence will foreseeably increase in similarly expo-  
313 nential dimensions both internationally and in-  
314 tra-nationally. Moreover, if bodies such as the  
315 United Nations continue to try to promote the  
316 mono-ethical stance of democracy and equal op-  
317 portunity in a universalistic manner, if e-democ-  
318 racy continues to be used to promote democratic  
319 behaviour and to impact on electoral processes  
320 and referenda on a global scale, if cryptocurren-  
321 cies continue to be used for anarcho-capitalist  
322 motives, if organised crime, cybercrime and  
323 commercially disruptive technology continue to  
324 undermine the activities of both business and  
325 politics at home and around the globe, then it is  
326 likely that international strife will not be less-  
327 ened, but exacerbated even further than it is to-  
328 day – as we see in widely differing geopolitical  
329 issues involving nation-states such as North Ko-  
330 rea, Iran, Myanmar, Syria, Iraq, Afghanistan,  
331 Ukraine and Yemen.

332 Stephen Hawking goes even further: he warns us  
333 of dangers which extend beyond the tensions of  
334 international criminal, racial and ideological su-  
335 premacy:

336 *I think that the development of full arti-*  
337 *ficial intelligence could spell the end of*  
338 *the human race. Once humans develop*  
339 *artificial intelligence, it would take off*  
340 *on its own and redesign itself at an ever-*  
341 *increasing rate. Humans, who are lim-*  
342 *ited by slow biological evolution,*  
343 *couldn't compete and would be super-*  
344 *seded.* (BBC, 2014)

345 As noted by John Thornhill writing in the Finan-  
346 cial Times, the phenomenon of AI-artefacts gen-  
347 erating dangerous information, political state-  
348 ments and actions which are unpredictable and  
349 incomprehensible for their architects, so-called  
350 ‘emergent’ behaviour, is already a reality.  
351 (Thornhill, 2017)

352 Viewed in the light of these developments, it is  
353 not surprising that the prevalence of the use of

354 the word ‘anxiety’ appears now to be peaking at  
355 a level not seen since the first half of the 19<sup>th</sup>  
356 Century. (Google, 2017a) Almost two centuries  
357 ago, European society was coming to terms with  
358 the consequences of the Industrial Revolution  
359 and empowering itself through what has been  
360 termed the ‘People’s Spring’. The latter was a  
361 fundamental political disruption which began in  
362 France and triggered the replacement of feudal-  
363 ism with democratic national states on a pan-Eu-  
364 ropean scale. It was at this historical juncture that  
365 significant precursors were laid for modernist  
366 societal ethics in Europe, as in the works of  
367 Charles Darwin (1809-1882), Karl Marx (1818-  
368 1883) and, not least, Friedrich Nietzsche (1844-  
369 1900), a philosopher whose influence on 20<sup>th</sup> and  
370 21<sup>st</sup> century ethics in the East and West we will  
371 discuss below in Section 1.

372 The parallels between what was taking place in  
373 the first half of the 19<sup>th</sup> Century and contempo-  
374 rary, closely interwoven developments in tech-  
375 nology, economics, politics, ethics and society  
376 at-large are self-evident. Just as then, manual  
377 work and skills are currently being replaced by  
378 technology. This is now happening on such a  
379 grand scale and with such speed that, for exam-  
380 ple, what just a few years ago was regarded in  
381 India, Pakistan and Bangladesh as a ‘demo-  
382 graphic dividend’ has metamorphosed into a ‘de-  
383 mographic nightmare’. In these three countries  
384 together, around 27 million people currently  
385 work in the clothes manufacturing industry for  
386 some of the lowest wages in the world. This re-  
387 gion of the world alone is expected to bring an-  
388 other 240 million low-wage manual workers to  
389 the labour market over the next 20 years; but  
390 within 10 years, due to developments in robotics,  
391 clothes manufacturing is likely to be fully relo-  
392 cated to the countries where the clothing is  
393 needed, thus creating massive unemployment in  
394 South Asia (Financial Times, 2017): that is, un-  
395 less these economies possess the resources to  
396 take the further development of digitalisation, AI  
397 and SI out of the hands of their current owners  
398 or unless the ethical super-dice are re-thrown and  
399 there is a fundamental change in global ethics.

400 In Section 1 of the paper, we will examine con-  
401 temporary ethics in more detail with a view to

402 illuminating, in Section 2, some of the major  
403 challenges to current premises which underlie  
404 corporate visions, strategies, cultures and ethics.  
405 Resolving these challenges will include address-  
406 ing the matter of personal and collective ac-  
407 countability for the ‘ethical footprint’  
408 (Robinson, 2014) which senior managers and  
409 their organisations leave behind.

410 For reasons of focus and relevance, the follow-  
411 ing discussion will not primarily address issues  
412 such as how robots can be programmed top-  
413 down with humanitarian law, i.e. to behave in an  
414 exemplary manner according to human ethical  
415 standards. Such matters are handled by numer-  
416 ous scientists and authors including Alan Win-  
417 field, who is Professor of Robot Ethics at the  
418 University of the West of England. Instead, we  
419 will investigate the nature of the ethical premises  
420 which underlie contemporary mainstream com-  
421 mercial and engineering developments in digital  
422 technology, taking information from the Singu-  
423 larity University which is based in the Silicon  
424 Valley area of the USA as a concrete example;  
425 we will also focus on the deep-reaching influ-  
426 ence on contemporary ethics of the works of one  
427 philosopher in particular, Friedrich Nietzsche,  
428 again as a specific and relevant example - and  
429 with no intention to discount the influence of  
430 other philosophers such as Immanuel Kant  
431 (whom we shall briefly mention below), Ber-  
432 trand Russell, Peter Strawson, John Dewey or  
433 others. In focussing on the works of Friedrich  
434 Nietzsche, we will also draw specifically on the  
435 significant ethical legacies of Homer, Dante  
436 Alighieri, Giacomo Leopardi and Emil Cioran.

437 As the article progresses, we hope to illuminate  
438 why, in an article published in Forbes and enti-  
439 tled ‘The Forces Driving Democratic Reces-  
440 sion’, Jay Ogilvy cites the fears of Francis Fuku-  
441 yama that the global democratic recession may  
442 turn into a global democratic depression and then  
443 writes the following about one of the founders of  
444 the Singularity University, also Director of En-  
445 gineering at Google:

446 *The artificial intelligence-driven, post*  
447 *humanist future promoted by Ray Kur-*  
448 *zweil and others is a cold, cold place.*  
449 (Ogilvy, 2017)

450 We will also shed light on why Alan Winfield,  
451 in his widely recognised status as a robot ethicist,  
452 as mentioned above, feels compelled to state the  
453 following in a BBC interview:

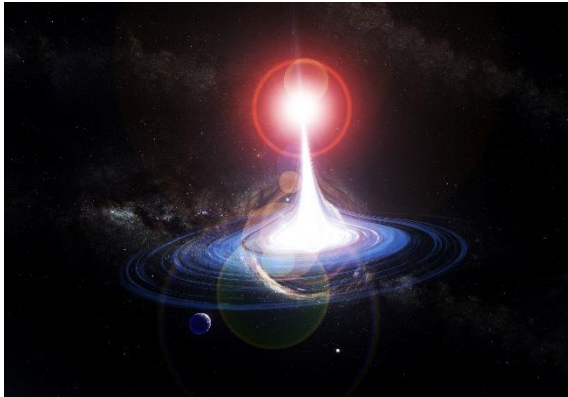
454 *I hope that no-one loses out.* (Winfield,  
455 2017)

456 By examining the historical and contemporary  
457 ethical backcloth to statements such as these, we  
458 hope to contribute to the thought processes and  
459 decisions which will be made in the further de-  
460 velopment of AI and SI by scientists, software  
461 engineers, senior business managers and regula-  
462 tory bodies.

463 In our Concluding Reflections, we will look to  
464 AI and SI as a source of inspiration for radical  
465 ethical transformation.

**1. Which ethical premises underlie predominant forces behind the development of digitalisation, artificial intelligence, superintelligence and singularity?**

**1.1 Technological singularity prior to ethical singularity: Have we put the cart before the horse?**



466 In this image (Britschgi, 2018), we see a graphical  
467 representation of the concept of singularity  
468 from the field of physics where it can be under-  
469 stood as follows:

470 *In the centre of a black hole is a gravi-*  
471 *tational singularity, a one-dimensional*  
472 *point which contains a huge mass in an*  
473 *infinitely small space, where density and*  
474 *gravity become infinite and space-time*  
475 *curves infinitely, and where the laws of*  
476 *physics as we know them cease to oper-*  
477 *ate. (Mastin, 2017)*

478 The use of the term ‘singularity’ is to be found  
479 half a century earlier in relation to conversations  
480 which took place between the two mathemati-  
481 cians, Stanislaw Ulam and John von Neumann:

482 *One conversation centered on the ever-*  
483 *accelerating progress of technology and*  
484 *changes in the mode of human life,*  
485 *which gives the appearance of ap-*  
486 *proaching some essential singularity in*  
487 *the history of the race beyond which hu-*  
488 *man affairs, as we know them, could not*  
489 *continue. (Ulam, 1958)*

490 Today, we find that the definition of the term  
491 ‘technological singularity’ cited in Wikipedia in-  
492 cludes the term ‘artificial superintelligence’ as  
493 follows:

494 *The technological singularity is the hy-*  
495 *pothesis that the invention of artificial*  
496 *superintelligence will abruptly trigger*  
497 *runaway technological growth, result-*  
498 *ing in unfathomable changes to human*  
499 *civilization. (Wikipedia, 2017)*

500 When one enters into the website of the Singu-  
501 larity University (Singularity University, 2017),  
502 which is based in San Francisco, one is con-  
503 fronted with a vocabulary which – viewed in its  
504 totality – expresses the set of ethical premises  
505 which the website contributors and the founders  
506 of the Singularity University apparently share, or  
507 at least those which they find appropriate to  
508 communicate to the outside world. What is sali-  
509 ent about the vocabulary and the premises which  
510 they express is that, from an ethical point of  
511 view, little, if anything, seems to have changed  
512 since the beginning of the 20<sup>th</sup> Century – which  
513 is possibly partly indicative of the inherent para-  
514 dox in which AI-theorists and practitioners, as  
515 also philosophers, now find themselves: lacking  
516 concepts which are yet to be conceived and  
517 might even be inconceivable for the human spe-  
518 cies, one is compelled to use terms and concepts  
519 which will predictably one day become obsolete  
520 or, at most, ‘historically interesting items’.

521 The fact that nothing of major significance  
522 seems to have changed from an ethical point of  
523 view could, however, be indicative of something  
524 which we hypothesized above: namely that the  
525 ethical super-dice will factually remain unturned  
526 for centuries to come. The evolution of ethical-  
527 political history may indeed have reached an  
528 end, in one part of the world at least, with the  
529 advent of modernism, of liberal democracy and  
530 of life in general – including politics, health and  
531 education being driven materialistically by the  
532 market economy. This thesis was proposed by  
533 Francis Fukuyama in ‘The End of History and  
534 the Last Man’ (Fukuyama, 1992) and partly re-  
535 vised in his later works including ‘Our Posthu-  
536 man Future, Consequences of the Biotechnology  
537 Revolution’ (Fukuyama, 2002). This leads us to



538 examine the ethical super-dice hypothesis in  
 539 more depth using the example of the Singularity  
 540 University’s website. At the time of writing, eth-  
 541 ically salient vocabulary and phrasing include,

542       ... we empower

543       ... be exponential

544       ... creating a life of possibility

545       ... we have a massive transformative  
 546       purpose

547       ... using business as a force for good and  
 548       defining success both in terms of reve-  
 549       nue and social impact

550       ... we place a premium on igniting a  
 551       massive transformative purpose over  
 552       our bottom line

553       ... we seek to be a model for others on  
 554       their journey to creating measurable im-  
 555       pact

556       ... building an abundant future together

557       ... diversity creates a better future

558 These and very similar phrases were used with  
 559 high frequency by the majority of key speakers  
 560 at the Singularity University’s Global Summit  
 561 2017 (Singularity University, 2017) in San Fran-  
 562 cisco:

563       ... here at the Singularity University, we  
 564       empower leaders

565       ... we want to improve humanity

566       ... to create more augmented intelli-  
 567       gence

568       ... to make better people

569       ... we want the best, the brightest and the  
 570       most brilliant

571       ... find out who we are and who we are  
 572       meant to be

573       ... we want to ensure a future of prosper-  
 574       ity for our entire planet

575       ... moving this planet forward

576       ... we want to solve the world’s biggest  
 577       challenges

578       ... we need to be exponential and to have  
 579       an abundant mindset

580       ... using the leverage and the fire-power  
 581       which we have

582       ... what is good for the world is good for  
 583       business

584       ... if you promote diversity in your or-  
 585       ganisation, it’s good for business

586       ... AI is your interface to anything you  
 587       want

588       ... those who don’t embrace AI will find  
 589       themselves passed by

590       ... we must help to prevent authoritari-  
 591       anism

592 In terms of ethical premises, these declarations  
 593 and affirmations can be understood to imply

- 594 - that the human condition is – or should
- 595 be – a state of physical and psychologi-
- 596 cal autonomy whereby human-beings
- 597     o assume self-responsibility,
- 598     o create and select their own val-
- 599     ues and priorities and
- 600     o act in accordance with their self-
- 601     assumed self-responsibility,
- 602     values and priorities.

603 The main body of statements made at the 2017  
 604 Singularity University Global Summit (hence-  
 605 forth SU-GS) arguably implied the related core  
 606 ethical premise, i.e.

- 607 - that there is an imperative for assuming
- 608 a self-legitimising, proactive form of
- 609 self-determination and human will in or-
- 610 der to create and sustain individual and
- 611 collective mindsets of existential cer-
- 612 tainty.

613 Taken together, these ethical premises presup-  
614 pose that human-beings possess a faculty for au-  
615 tonomy, for the creation and reception of imper-  
616 atives – as also posited by Immanuel Kant with  
617 his concept of the ‘categorical imperative’ (Kant,  
618 1871) – and for willing, doing and achieving.  
619 Importantly for the purposes of this paper, the  
620 cited affirmations can infer the self-legitimised  
621 creation and selection of ethical premises along  
622 the following lines:

- 623 - there is no higher ethical authority than  
624 the members of human societies who,
  - 625 ○ in necessarily recognising not  
626 only self-ness but also other-  
627 ness within a given commu-  
628 nity/society,
  - 629 ○ possess the faculty of ‘will’ to  
630 empower themselves and each  
631 other
  - 632 ○ with the ethical imperative of at-  
633 taining standards of thoughts,  
634 intentions and behaviour which,  
635 ○ in being agreed in the commu-  
636 nity/society,
  - 637 ○ means that the attainment of  
638 those standards acquires and de-  
639 serves societal recognition, i.e.  
640 through being seen to be do-  
641 ing/thinking ‘the right thing’.

642 The above would imply that there ‘is’ no ethi-  
643 cally pre-ordaining, judging, life-determining,  
644 omnipotent, theistic or other form of metaphysi-  
645 cal authority or force who/which oversees hu-  
646 man thoughts, intentions and behaviour. Conse-  
647 quently, nothing stands in the way of pursuing  
648 the self-defined standards which were pro-  
649 claimed at the SU-GS and involved the advance-  
650 ment of digitalisation, SI and AI – such as

- 651 *making better people*
- 652 *augmenting human intelligence*
- 653 *eradicating all human illnesses*
- 654 *creating abundance in all things*
- 655 *increasing human longevity*
- 656 and, in general,

657 *improving humanity.*

658 Whilst assuming a form of BEING which is  
659 based on some of the key premises upon which  
660 the worldviews of modernism and liberal de-  
661 mocracy have been built – including atomistic  
662 reason, logic and empiricism as well as a univer-  
663 salistic aspiration for egalitarianism and self-de-  
664 termination – factually, of course, the speakers  
665 were making their declarations in a global con-  
666 text. Humanity comprises not one, but multiple  
667 worldviews whose respective constellations of  
668 key premises fundamentally differ. There are,  
669 for example, numerous contemporary societies  
670 which assume a form of BEING which is based  
671 on a pre-determined, theistically-based human  
672 condition in which one’s thoughts and acts are  
673 overseen and judged by a higher authority; the  
674 latter preordains the code of ethics by which hu-  
675 man thoughts, intentions and behaviour are  
676 judged.

677 If we disregard for one moment the notion that  
678 only one worldview can be universally valid (in  
679 the sense that those who adhere to a different  
680 worldview to one’s own are regarded as ‘under-  
681 developed’ or ‘sacrilegious’ etc.), if we disre-  
682 gard the theoretical possibility of a global state  
683 let alone a global democracy (Sen, 2009) (p.408)  
684 and if we integrate the full implications of multi-  
685 ethically into our view of the human condition,  
686 then the question raises itself as to the legitimacy  
687 of the ethical premises which underlie not  
688 merely the affirmations cited above, but also the  
689 whole field of the development of digitalisation,  
690 AI- and SI. Arguably, there should have been  
691 global agreement on these ethical premises be-  
692 fore the latter developments were initiated.

## 1.2 Digital transformation and ethical stag- nation: Why is the argumentation of ethi- cal legitimacy still circular?

693 At this point in the discussion, we propose that  
694 implementable and sustainable answers to the  
695 question of legitimacy are required, perhaps ur-  
696 gently so, given the exponential, world-engulf-  
697 ing dimensions and aspirations of these develop-  
698 ments and given that the premise of legitimacy

699 (to which we will return below) is currently a  
700 crucial ingredient for the human condition and  
701 human ethics as many of us have grown to know  
702 them. However, finding solutions between dif-  
703 fering ethical standpoints by means of verbal ar-  
704 gumentation generally proves highly challeng-  
705 ing, if not impossible, as the following example  
706 shows.

707 If a person ‘A’ genuinely believes in  
708 God, or a god, who pre-ordains what is  
709 ethical or not, then, as a theistic human  
710 subject, ‘A’ cannot assume the legiti-  
711 macy to programme any ethical prem-  
712 ises which are not theistically pre-or-  
713 dained into robots or any other forms of  
714 AI or SI. It follows that if, for example,  
715 ‘A’ believes that killing any human-be-  
716 ing is in absolute contradiction with di-  
717 vine will, then ‘A’ cannot and will not  
718 partake in the development of drones  
719 which could potentially kill human-be-  
720 ings.

721 If a person ‘B’ is a genuine atheist living  
722 in a democratic community which up-  
723 holds the cardinal right to self-determi-  
724 nation, then ‘B’ can indeed legitimise  
725 him/herself to programme either his/her  
726 own self-determined ethics or the capac-  
727 ity for ethical self-determination into ro-  
728 bots or into any other forms of AI or SI,  
729 as long as any laws to which ‘B’ chooses  
730 to bind him/herself are not violated. It  
731 follows that ‘B’ could indeed partake in  
732 the development of autonomous lethal  
733 weapons for defence or other purposes.

734 Whilst the ethical standpoints and behaviour of  
735 ‘A’ and ‘B’ are each intrinsically consistent, they  
736 are virtually impossible to reconcile with each  
737 other because of their respective circularity, the  
738 latter being a crucial ‘built-in’ feature for the  
739 sustainability of any ethical standpoint. Without  
740 tight circularity, a given ethical standpoint serves  
741 no purpose and has no ‘raison d’être’, rather like  
742 an undefined working hypothesis.

743 It is not surprising, therefore, that we find the  
744 phenomenon of circularity in the argumentation

745 of legitimacy concerning innumerable ethical is-  
746 sues in society. Examples of never-ending ethi-  
747 cal dispute include whaling, badger-culling, fox-  
748 hunting, genetic engineering, intensive farming,  
749 wind farms, ethnic homogeneity, population  
750 control, euthanasia, homosexuality, contracep-  
751 tion, climate control, organic agriculture, foreign  
752 aid, nuclear weapons, land-mines, mineral re-  
753 sources, the publication of state secrets and free  
754 speech. Each standpoint has its own water-tight  
755 case for legitimacy as was the case with the vio-  
756 lent events and demonstrations which took place  
757 at the beginning of August 2017 in Char-  
758 lottesville, Virginia, and in Mountain View, Cal-  
759 ifornia: some people were asserting their lawful  
760 right to free speech and others were asserting the  
761 lawful right to egalitarian treatment regardless of  
762 race, religion and gender. Professor Venkatra-  
763 man of the University of Boston commented at  
764 the time that the main problem was the fact that  
765 meaningful dialogue between the ethically po-  
766 larised factions was just not possible.  
767 (Venkatraman, 2017a)

768 In the case of digitalisation and AI, thousands of  
769 developers worldwide are legitimising them-  
770 selves to pursue the objective of creating maxi-  
771 mal levels of autonomy in their own image such  
772 as through proprioception (identifying and re-  
773 solving internal needs such as the recharging of  
774 batteries), exteroception (adapting behaviour to  
775 external factors) and autonomous foraging  
776 (identifying and exploiting existentially critical  
777 resources). The levels of intelligence and self-  
778 sufficiency of their artefacts, including emer-  
779 gent, i.e. unpredicted and unpredictable behav-  
780 iour and even disobedience to human instruc-  
781 tions, have been increasing so rapidly that fig-  
782 ures like Stephen Hawking, Nick Bostrom, Bill  
783 Gates and Elon Musk are now publicly urging  
784 for prudence, e.g. in the development of auton-  
785 omous weaponry. However, their own self-legiti-  
786 mised argumentation seems largely ineffective  
787 and restricted to the raising of verbal warning  
788 fingers in the name of mankind, as is to be found  
789 in a BBC interview with Stephen Hawking.  
790 (BBC, 2014) Ardent opponents of digitalisation  
791 and AI also raise their own arguments, but gen-  
792 uine agreements are currently scarce.

793 Pre-empting the discussion in Section 2, the  
794 managers of organisations in the field of digital-  
795 isation around the world currently have funda-  
796 mental decisions to make:

- 797 - Will they allow themselves to fall into  
798 ethical circularity concerning legiti-  
799 macy, or not?
- 800 - Will they search for a way to avoid it,  
801 and, if so, how? Or will they choose to  
802 ignore it and proceed with their current  
803 set of ethical premises?
- 804 - Will they wait for others to point the  
805 way, e.g. in order not to lose their com-  
806 petitive advantage in the short- and mid-  
807 term, and then follow them?

808 However, all three decisions are clearly lacking  
809 in long-term adequacy. As mentioned in the In-  
810 troduction, the responsibility for the ethical foot-  
811 print of an organisation (Robinson, 2014) argua-  
812 bly lies within the personal and collective ac-  
813 countability of its senior managers. If the man-  
814 agers themselves and/or if third parties recognise  
815 this accountability, the decision which the man-  
816 agers make concerning ethical legitimacy consti-  
817 tutes the starting point for all positive and nega-  
818 tive consequences for which they can be held ac-  
819 countable. In order to uphold this accountability,  
820 they have to identify the ethical standpoints from  
821 which their ethical footprints will be judged and  
822 somehow to overcome the circularity of the ar-  
823 gumentation of legitimacy on all sides.

824 We propose that the latter can be achieved by  
825 firstly addressing the issue, not about which eth-  
826 ical principles should be applied and why, but  
827 about the extent to which ethics can be legiti-  
828 mised at all, by whom or by what. In other  
829 words, senior managers have the opportunity –  
830 and arguably the obligation – to radically ques-  
831 tion the phenomenon of ethical legitimacy *per se*  
832 which, in turn, requires that they adequately un-  
833 derstand the phenomenon of ethics. This paper is  
834 intended to contribute not only to the deepening  
835 of that understanding but also to catalysing fun-  
836 damental change in the field of ethics. To this  
837 end, we further propose that a particular perspec-  
838 tive of ethical neutrality, which we will hence-  
839 forth term ‘anethicality’ – since this perspective  
840 lies outside the confines of merely human ethics

841 – and a linkable perspective of ‘a-certainty’,  
842 which, by definition, lies outside the paradigm of  
843 certainty and uncertainty, could bring radical  
844 movement into the fields of humanity’s self-un-  
845 derstanding, of its future in an increasingly digi-  
846 tised world and of its footprinting on the planet  
847 Earth.

848 It is arguable that a greater quality and quantity  
849 of resources should be allocated into achieving  
850 this radical movement than is being invested an-  
851 nually into the whole field of digitalisation: it is  
852 arguably regrettable that AI-development is cre-  
853 ating a need for the development of human ethics  
854 and not vice versa. One could ask if it would not  
855 be significantly more beneficial to humanity and  
856 other sentient beings if human ethical develop-  
857 ment would take place sooner and faster than AI  
858 development.

### 1.3 Unde venis et quo vadis, contemporary ethics

859 Before illuminating the above reflections in  
860 more depth and addressing the potential space  
861 which anethicality and a-certainty might have to  
862 offer, we will examine the nature of the ethics  
863 underlying predominant developments in digi-  
864 tisation and AI as well as the challenges which  
865 the increasingly digitalised world could have in  
866 store for private and corporate life if the field of  
867 ethics remains stagnant. Significantly, we will be  
868 referring to the enduring attractiveness of the  
869 ethical legacy of Friedrich Nietzsche which, it  
870 has often been claimed, was strongly influential  
871 on ideological developments which led to the  
872 First and Second World Wars. In tracing the  
873 roots of Nietzscheanism back as far as the works  
874 of Homer, Dante Alighieri and Giacomo Leo-  
875 pardi we aim to contribute to a deeper under-  
876 standing of where much of contemporary ethics  
877 in the field of digitalisation has come from and  
878 where it is leading.

879 By way of introduction, we note that in the early  
880 period of the 20<sup>th</sup> Century, Jewish intellectuals  
881 were interested in the works of Nietzsche to such  
882 an extent that they were regarded by right wing  
883 factions in France as Nietzscheans (Schrift,

884 1995); we also note that, during the First World  
 885 War, German soldiers were given copies of one  
 886 of Friedrich Nietzsche’s most famous works to  
 887 boost their militaristic patriotism. (Aschheim,  
 888 1994) What is it about the works of Nietzsche  
 889 which could have appealed to both Zionists and  
 890 anti-Semitic nationalists and what could the link  
 891 be to the contemporary development of AI and  
 892 SI?

893 In the book which was distributed to the German  
 894 soldiers, ‘Also sprach Zarathustra’, Nietzsche  
 895 writes the famous proclamation that God is dead,  
 896 which, in the context of his writing, refers cen-  
 897 trally to the god of Christianity. (Nietzsche,  
 898 1883) In this and other works, e.g. (Nietzsche,  
 899 1882), Nietzsche reflects that, in being able/wor-  
 900 thy to kill their belief in God, the perpetrators  
 901 themselves become god, i.e. that Christian god-  
 902 liness is a concept created by its believers and  
 903 that believers must have the faculty to create  
 904 their god in the first place in order to be able to  
 905 kill him later.

906 In the same works, Nietzsche also coins the  
 907 terms

- 908 - Übermensch (the Super-Human, en-  
 909 hanced beyond human limitations to  
 910 perfection)
- 911 - ‘Untermensch’ (the Inferior-Human, the  
 912 undesirable antithesis of the Super-Hu-  
 913 man) and
- 914 - ‘letzter Mensch’ (the Last-Human, who  
 915 lazes in comfort and abundance).

916 Interestingly, at the 2017 SU-GS in San Fran-  
 917 cisco, terminology was used like ‘augmented in-  
 918 telligence’, ‘better people’, ‘human enhance-  
 919 ment’ and ‘enhanced participants’ (a term which  
 920 was applied to superior-level SU-GS partici-  
 921 pants) – terms which seem to be strikingly close  
 922 to Friedrich Nietzsche’s concept of the Super-  
 923 Human.

924 Given the historical significance of the cultural  
 925 reception of the ethical premises in the works of  
 926 Nietzsche in countries such as China, Cuba,  
 927 France, Germany, Italy, Japan, Russia and the  
 928 United States of America from the beginning of  
 929 the 20<sup>th</sup> Century, we will reflect upon the extent

930 to which not only concepts like the ‘Super-Hu-  
 931 man’ but also, more importantly, key underlying  
 932 ethical premises in Nietzsche’s work are to be  
 933 found in the motives, direction and conse-  
 934 quences of a vast segment of current develop-  
 935 ments in digitalisation, AI and SI, not to omit  
 936 questions concerning the ethical footprints of the  
 937 drivers of these developments and their legiti-  
 938 macy.

939 As sociologists, historians and philosophers  
 940 have been researching more and more deeply  
 941 into the roots of socio-political movements in  
 942 Europe, Asia and the Americas during the 20<sup>th</sup>  
 943 Century, an increasing amount of information  
 944 has come to light which indicates that political  
 945 figures such as Mao Zedong, Che Guevara, Vla-  
 946 dimir Lenin, Joseph Stalin and Benito Mussolini  
 947 were all strongly influenced by central ethical  
 948 premises in Nietzsche’s work. (Lixin, 1999),  
 949 (Rosenthal, 1994). Similarly influenced were  
 950 Charles de Gaulle, Theodore Roosevelt and  
 951 Adolf Hitler, alongside philosophers, psycholo-  
 952 gists, sociologists and writers such as Jean-Paul  
 953 Sartre, Emil Cioran, Osip Mandelstam, Max We-  
 954 ber, Hermann Hesse, Theodor Herzl, Sigmund  
 955 Freud, C.J. Jung and Carl Rogers. Whilst the cul-  
 956 tural and individual reception of Nietzsche’s  
 957 works varies and whilst certain central premises  
 958 in the works themselves, which were published  
 959 between 1872 and 1889, are often portrayed in  
 960 the secondary literature to vary, the most signifi-  
 961 cant ethical premises which are also particularly  
 962 relevant for this paper can be formulated as fol-  
 963 lows:

- 964 - **the will to influence** and determine (re-  
 965 verse-Darwinism and the will to power)
- 966 - **amor fati** and **eternal autonomy** (living  
 967 the freedom of embracing one’s life in  
 968 such a way as to want to live it all over  
 969 again in exactly the same way)
- 970 - **self-perfection** and **superhumanism**
- 971 - **human aesthetics** (defiance of nihilism  
 972 by saying ‘yes’ to – and in experiencing  
 973 – *life as a whole as beautiful, or at least*  
 974 *certain presuppositions of such as tem-*  
 975 *porality or necessity as beautiful* (May,  
 976 2015)).

977 These four ethical premises are so closely inter-  
978 twined that we must examine them as a whole  
979 rather than as separate items, an approach which  
980 in itself is crucial to understanding both Nie-  
981 tzsche's works (which are perhaps ethically  
982 more complex and differentiated than has some-  
983 times been portrayed) and to recognising paral-  
984 lels with current developments in digitalisation,  
985 AI and SI.

986 The will to influence presupposes that the human  
987 possesses the faculty to exert will, which means  
988 that the human is necessarily autonomous in ac-  
989 tion, in motives and in ethics. This ethical prem-  
990 ise 'posits' no god or other transcendental au-  
991 thority who/which might, for example, bestow  
992 humans with the free-will to either conform  
993 with, or sin against, preordained ethics. In af-  
994 firmatively assuming a state of being free to  
995 one's own devices, the human-being confronts  
996 itself with an apparent choice between two ne-  
997 cessities, as follows, ones which we will term  
998 'self-assigned ethical imperatives'.

999 **The self-assigned ethical imperative**  
1000 **of accepting human existence as being**  
1001 **futile, thereby embracing nihilism**  
1002 **and its consequences.**

1003 We find this imperative expressed by Emil  
1004 Cioran, for example, with the sentence:

1005 *Ohne Todessehnsucht hätte ich die Of-*  
1006 *fenbarung des Herzens niemals erlebt.*  
1007 (Our translation: 'If I hadn't yearned for  
1008 death, I would never have experienced  
1009 the opening of my heart.')(Cioran,  
1010 2008) (p. 508)

1011 As an alternative to choose from, we have

1012 **The self-assigned ethical imperative**  
1013 **of defying mental acts both of nihilism**  
1014 **and of being embedded in a natural**  
1015 **environment which shows itself to be**  
1016 **at least indifferent to, if not hostile to,**  
1017 **human-beings, thereby embracing**  
1018 **human creation and human passion,**  
1019 **i.e. human aesthetics.**

1020 This imperative we find expressed by Friedrich  
1021 Nietzsche with the words:

1022 *Denn nur als ästhetisches Phänomen ist*  
1023 *das Dasein und die Welt ewig rechtfert-*  
1024 *igt.* (Our translation: 'It is only as an  
1025 aesthetic phenomenon that existence and  
1026 the world are eternally justified.')(  
1027 Nietzsche, 1886)

1028 In contrast to the oeuvres of Cioran, who, in one  
1029 place writes that he would like to be as free as a  
1030 stillborn child (Cioran, 2008) (p.1486), Nie-  
1031 tzscheanism involves imperatively embracing  
1032 human creation and passion through, and with,  
1033 the will to influence, and thereby to be free and  
1034 alive. (Church, 2012) (p. 135) This latter ethical  
1035 premise brings with it both the freedom and the  
1036 imperative to seek ultimate sensations. (Church,  
1037 2012) (p. 145) In necessarily affirming one's  
1038 natural passions, one defies dogmas such as  
1039 Christianity which, by virtue of its preaching the  
1040 suppression of natural passions, is deemed by  
1041 Nietzscheanism to

- 1042 - negate natural human life on earth,
- 1043 - to position true life in an after-life – such  
1044 as one in heaven or hell – and
- 1045 - to introduce the debilitating mental phe-  
1046 nomena (or 'mindsets') of having expect-  
1047 ations and ulterior values which steer  
1048 one's thoughts, feelings and actions and  
1049 which lead one to need to justify the lat-  
1050 ter according to an externally-, i.e. theis-  
1051 tically-, preordained set of ethical prem-  
1052 ises.

1053 In possessing and embracing the will to influ-  
1054 ence, one defies the passive fatalism of a Dar-  
1055 winist understanding of natural evolution: in-  
1056 stead, one takes control over one's own faculties  
1057 and development. *Amor fati* involves the neces-  
1058 sary affirmation of whatever has been, whatever  
1059 is, and whatever will be. Enhancement is a ne-  
1060 cessity for the human condition and can be per-  
1061 ceived to stem from the enhancement of the in-  
1062 dividual, i.e. one does, and should, strive to per-  
1063 fect the human body and mind both in the present  
1064 and for the future; one does so in recognising that  
1065 the authentic improvements made by one gener-  
1066 ation can be passed onto the next and that each  
1067 individual, as an integral part of human continu-  
1068 ity and as a 'synthetic man' who integrates the  
1069 past (Church, 2012)(p. 247), contributes to its

1070 own longevity and eternal autonomy. The other  
1071 option would be to let humanity decay and cease  
1072 to exist.

1073 It is important to be mindful of the historical con-  
1074 texts in which Nietzsche's writings were being  
1075 read and absorbed: a broad range of historians  
1076 and sociologists tell us that, like many other po-  
1077 litically engaged figures, Mao Zedong, Vladimir  
1078 Lenin and influential intellectuals around them  
1079 deplored the remains of feudalism which they  
1080 perceived to permeate their respective societies  
1081 with a 'peasant' mentality; they regarded the  
1082 roots of these remains of feudalism as the antith-  
1083 esis of the energising ethical premises which  
1084 they found in the works of authors like Nie-  
1085 tzsche; the 'peasant' mentality represented an  
1086 immense, if not insurmountable, hindrance to the  
1087 development of a world-class nation of superhu-  
1088 mans; Marxism did not offer a solution which  
1089 matched the character-traits and aspirations of  
1090 individuals such as Mao Zedong or Joseph Sta-  
1091 lin, nor did it contribute to the attainment of in-  
1092 ternational competitiveness or even supremacy  
1093 in the way in which 'Nietzscheanism' could do.  
1094 Consequently, the influence of central ethical  
1095 premises in Nietzschean works on the socio-po-  
1096 litical developments of China and Russia can be  
1097 seen to be greater than those of Karl Marx, even  
1098 though Nietzsche's works were formally banned  
1099 in various communist countries from time to  
1100 time. The relevance of this matter to the current  
1101 paper is critical for the following reason: whilst  
1102 Nietzschean thinking and its underlying ethical  
1103 premises have been associated with some of the  
1104 causes of 'humanitarian atrocities' such as those  
1105 of the two World Wars, falling at least temporar-  
1106 ily into wide disrepute, a very similar cluster of  
1107 ethical premises, those which concern us here  
1108 and which do indeed incite the self-legitimis-  
1109 ation of individual and collective supremacy, can

1110 be identified to underlie a major propor-  
1111 tion of the forces which are driving cur-  
1112 rent developments in digitalisation, AI  
1113 and SI

1114 and

1115 explain the anxieties and the warnings  
1116 which certain figures both outside and

1117 within these 'exponential' develop-  
1118 ments are currently voicing with partic-  
1119 ular vehemence.

1120 Key proponents of AI and SI at the SU-GS prom-  
1121 ised a new salvation for humankind in reversing  
1122 global warming, enabling the human race to be-  
1123 come a multi-world species, running tourist  
1124 flights to Mars, creating a world of abundance,  
1125 eradicating both all human medical illnesses and  
1126 authoritarianism etc.

1127 *And, just so that you understand the*  
1128 *rules of the game,*

1129 the audience was given to understand in various  
1130 synonymous formulations throughout the event

1131 *do make sure that you are part of these*  
1132 *developments, if you don't want to get*  
1133 *passed by!*

1134 Listening between the lines, one of the common  
1135 core messages of most key speakers could be in-  
1136 terpreted as being explicitly energising-entreat-  
1137 ing and implicitly excluding-threatening, i.e.

1138 *The choice and the consequences are*  
1139 *yours alone!*

1140 Writing in the Financial Times, Robin Wiggles-  
1141 worth cites something very similar in relation to  
1142 the use of AI which is purported to be revolu-  
1143 tionising the management of money, e.g. in the  
1144 form of natural language processing (NLP):

1145 *"Data is being generated and digitally*  
1146 *captured at an exponentially increasing*  
1147 *rate, and NLP is an important part of*  
1148 *our strategy to understand what is going*  
1149 *on across the global markets we invest*  
1150 *in," says Kevin Lee, head of data science*  
1151 *at GIC, Singapore's SWF. "Everyone is*  
1152 *at least looking at them, otherwise you*  
1153 *risk falling behind."* (Wigglesworth,  
1154 2017)

1155 It is significant for our discussion that Mao  
1156 Zedong, Vladimir Lenin, Adolf Hitler, Charles  
1157 de Gaulle, Theodor Roosevelt and many others  
1158 who were inspired by works which notably in-  
1159 cluded those of Nietzsche rose to positions of

1160 large-scale influence and became driving forces  
1161 behind the socio-political and economic devel-  
1162 opments of the 20<sup>th</sup> Century. Very often couched  
1163 within such developments lay the phenomenon  
1164 of inclusion and exclusion in a form which was  
1165 quite possibly accentuated through the circular  
1166 and Nietzschean twist of self-determined legiti-  
1167 macy. Either one empowered oneself to adopt  
1168 and embrace the posited ethical credo, or not:

1169 *If your ethicality just happens not to*  
1170 *match, then you will be passed by!*

1171 In other words, at that time, any consequences  
1172 such as dis-enfranchisement and exclusion were  
1173 self-inflicted. Today, national economies have  
1174 the option to include themselves through digital  
1175 compliance and digital assertion or to exclude  
1176 themselves and bear the consequences on their  
1177 own shoulders. In turn, political parties have the  
1178 option to include themselves in the forces ex-  
1179 erted by the economy and consumers or to bear  
1180 the self-inflicted consequence of being ousted or  
1181 not even voted for.

1182 Interestingly, we find that not only the word  
1183 ‘anxiety’ (see above) but also the word ‘inclu-  
1184 sion’ – according to Google’s N-Gram – has  
1185 been progressively increasing in prevalence in  
1186 recent years, suggesting that it, too, is a signifi-  
1187 cant issue in contemporary society. (Google,  
1188 2017b)

1189 Also, we note that the vocabulary currently be-  
1190 ing used in the fields of the development of dig-  
1191 italisation, AI and SI which we have been ana-  
1192 lysing seems, in general, not to include terms  
1193 such as ‘grace’ or ‘pity’, let alone ‘shame’ or  
1194 ‘guilt’. Nietzsche himself explicitly deplored the  
1195 concept of ‘pity’, i.e. pity for the Lower-Level  
1196 Human, just as he held the concept of egalitarian  
1197 democracy in low regard. (Nietzsche, 1888) As  
1198 Vladimir Jelkic remarks:

1199 *Nietzsche’s criticism of democracy is*  
1200 *part of his overall criticism of moder-*  
1201 *nity. .... For Nietzsche, the democratic*  
1202 *movement is not only a decay of political*  
1203 *organisation, but also – and this is more*  
1204 *important – a form of man’s diminish-*  
1205 *ment, the diminishment of man’s value*

1206 *and worth through having made it medi-*  
1207 *ocre. ... This equality of rights is odious*  
1208 *to Nietzsche because he holds that it is*  
1209 *directed against the “creative fullness of*  
1210 *power”, noblemen and higher status*  
1211 *people. (Jelkic, 2006)*

1212 Higher individual and collective status naturally  
1213 co-occurs with individual and collective inferi-  
1214 ority – without which the concepts of the Super-  
1215 Human, superintelligence and supremacy have  
1216 no significance. Accordingly, those who do not,  
1217 or cannot, embrace the development of technol-  
1218 ogy-based enhancement and Super-Humanism,  
1219 including those who stand in its way are, by im-  
1220 plicit definition, collectively Inferior-Humans. It  
1221 follows that to have pity on such humans would  
1222 logically and ideologically not fit with the set of  
1223 four ethical principles outlined above. Accord-  
1224 ing to Nietzsche’s credo, the concepts of ‘love  
1225 for humanity’ and ‘pity’ belong to the undesira-  
1226 ble ethical principles which Christianity had  
1227 been propagating for many centuries and which  
1228 had helped the weak to maintain their grip on  
1229 power (Froese, 2006) (p. 118); further, those  
1230 who do not, or cannot, embrace human aesthetics  
1231 as the justification to existence and life have fac-  
1232 tually opted for the first of the two possible self-  
1233 assigned ethical imperatives given above, which  
1234 is nihilism wherein human life has no value.  
1235 Given the fact that any consequences would be  
1236 self-determined, it would be unfitting for others  
1237 to feel or show pity for such people. It follows  
1238 that there would be no sense of bad conscience  
1239 or guilt towards those who find themselves in a  
1240 condition of self-inflicted dis-enfranchisement –  
1241 which helps us to understand why, as mentioned  
1242 in the Introduction above, Jay Ogilvy writes:

1243 *The artificial intelligence-driven, post*  
1244 *humanist future promoted by Ray Kur-*  
1245 *zweil and others is a cold, cold place.*  
1246 *(Ogilvy, 2017)*

1247 The black-and-white dichotomy between supe-  
1248 rior and inferior to be found in Nietzsche’s leg-  
1249 acy – i.e. his ethical footprint – manifests itself  
1250 today both overtly and covertly in the eastern,  
1251 western, northern, southern, digital and non-dig-  
1252 ital hemispheres. In this vein, the futurist Robert



1253 Tercek comments in an article on digital conver-  
1254 gence:

1255 *Data-poor businesses find themselves at*  
1256 *a striking competitive disadvantage*  
1257 *compared to data-rich companies. And*  
1258 *individual people are at the greatest dis-*  
1259 *advantage of all, because we have next-*  
1260 *to-no-ability to utilize our personal data.*  
1261 *The companies with the best data are*  
1262 *most likely to succeed because they see*  
1263 *the trends most vividly and that's why*  
1264 *they can make better decisions about*  
1265 *where to place their bets. (Roland, 2017)*

1266 In the work of digitalisation specialists such as  
1267 Professor Venkatraman (Venkatraman, 2017b),  
1268 we see that the monetarisation of big data has be-  
1269 come the secret to exponential growth, commer-  
1270 cial success and supremacy, as the new meaning  
1271 of the abbreviation 'URL' clearly indicates:

1272 **Ubiquity First, Revenue Later.**

1273 Those commercially intelligent companies  
1274 which aspire to market superiority are currently  
1275 hunting, according to Venkatraman, for any and  
1276 all opportunities to capture data and turn it into  
1277 monetary value. One example is how search en-  
1278 gines can gather data about consumer decisions  
1279 at what is termed the 'zero moment of truth', i.e.  
1280 when consumers are researching for products.  
1281 The search engines process the data which they  
1282 glean from on-line search-behaviour so that  
1283 product information can be adapted and placed  
1284 in such a way as to help and influence consumers  
1285 in huge masses; the tools of the search engines  
1286 can even identify commercially viable products  
1287 and services which do not yet exist. Not only are  
1288 the daily on-line search and credit-card behav-  
1289 iour being minutely monitored, statisticised, val-  
1290 orised and monetarised but also attitudinal infor-  
1291 mation and habits from a rapidly increasing  
1292 number of walks of life, including the personal  
1293 health, the mobility, the political leanings and  
1294 beliefs of billions of people.

1295 Whilst the commercial objective may be to mon-  
1296 etarise the data and not to make people paranoid  
1297 about being followed and monitored, what can  
1298 possibly be seen to be happening from a critical,

1299 societal perspective is a return to the scale of  
1300 psychological dis-enfranchisement which  
1301 emerged at the beginning of the 20<sup>th</sup> Century.  
1302 That was when millions of men and their fami-  
1303 lies were arguably psychologically and physi-  
1304 cally conscripted into a status with a strong like-  
1305 lihood of yielding *amor vitae meae* (love of my  
1306 life) for a statistical entry into a list of named and  
1307 unnamed gravestones. This time, at the begin-  
1308 ning of the 21<sup>st</sup> Century, one could argue that  
1309 psychological dis-enfranchisement is not ethi-  
1310 cised, as it was then, under the imperative of a  
1311 nationalistic vision of *amor/salus patriae* (the  
1312 love/salvation of the country), but under the im-  
1313 perative of a global vision called *salus humani*  
1314 *generis* (the salvation of humanity). Many of the  
1315 proponents of AI and SI are making it abun-  
1316 dantly clear that the achievement of this global  
1317 vision will be impossible without the ingredients  
1318 of superintelligence which lesser humans lack,  
1319 or lack access to.

1320 In the case of Microsoft, the publicly available  
1321 formulation of the corporate credo is:

1322 *Our mission is to empower every person*  
1323 *and every organization on the planet to*  
1324 *achieve more. (Microsoft.com, 2017)*

1325 At Facebook, one finds the Mark Zuckerberg's  
1326 vision formulated as follows:

1327 *... In times like these, the most important*  
1328 *thing we at Facebook can do is develop*  
1329 *the social infrastructure to give people*  
1330 *the power to build a global community*  
1331 *that works for all of us. (Zuckerberg,*  
1332 *2017)*

1333 A significant inherent element which these two  
1334 statements share is that of power-ownership: the  
1335 latter is, of course, a prerequisite for the empow-  
1336 erment of those who possess the faculty to be  
1337 empowered. Zuckerberg's formulation '*that*  
1338 *works for all of us*' may or may not contain a  
1339 Freudian slip in its ambiguity: Who is meant by  
1340 *us*? Is it every human-being or every dominant  
1341 player in social media? Who is the person doing  
1342 the *work*? – And for whom?

1343 Whilst it is arguable that figures such as Mark  
 1344 Zuckerberg cannot be made ethically accounta-  
 1345 ble for what has factually developed out of their  
 1346 creations, it can be conjectured that social media  
 1347 like Facebook, LinkedIn, Twitter, WhatsApp  
 1348 etc. operate today with a hidden agenda, i.e. with  
 1349 a conscription-like strategy which one might for-  
 1350 mulate along the following lines:

1351 *Sign up, enhance your dignity, get closer*  
 1352 *to your community so that we can factually*  
 1353 *turn you into a 'statistic', a commer-*  
 1354 *cial-data-resource, a means to our own*  
 1355 *market supremacy, without you even*  
 1356 *thinking about it! We need monetisable*  
 1357 *data from two billion people just like you*  
 1358 *in order to retain and expand our su-*  
 1359 *preme market position.*

1360 Whilst establishing the veritable ethics behind  
 1361 the visions, missions and strategies of these com-  
 1362 panies would require interviews and reflections  
 1363 (Robinson, 2016) with the key managers, certain  
 1364 hints can be gained from examples such as the  
 1365 following report in the Guardian:

1366 *Jiranuch Trirat, a 22-year-old from*  
 1367 *Phuket, was left devastated after her*  
 1368 *boyfriend, Wuttisan Wongtalay, hanged*  
 1369 *their 11-month old daughter Natalie*  
 1370 *from the side of an abandoned building*  
 1371 *before taking his own life.*

1372 *He broadcast Natalie's murder on Face-*  
 1373 *book Live, a video that Jiranuch came*  
 1374 *across that evening. (Guardian, 2017)*

1375 Commenting on Zuckerberg's response to the  
 1376 question why Facebook took over 24 hours to re-  
 1377 move the video from public access and why such  
 1378 material is not immediately removed but allowed  
 1379 to stay on-line due to stringent internal policies,  
 1380 Michael Schilliger writes in the Swiss newspa-  
 1381 per, NZZ:

1382 *Dass Facebook diese Richtlinien so*  
 1383 *exakt und detailreich ausgearbeitet hat,*  
 1384 *ist Ausdruck des Selbstverständnisses*  
 1385 *des Konzerns und vielleicht deutlichstes*  
 1386 *Zeichen dafür, wie er seine Mission als*

1387 *Weltverbesserer wahrnehmen will. Fa-*  
 1388 *cebook will erklärtermassen die Mei-*  
 1389 *nungsfreiheit so hoch wie möglich hal-*  
 1390 *ten, uns so wenig wie nötig einschrän-*  
 1391 *ken. Diese Maxime macht Facebook so*  
 1392 *attraktiv für seine Nutzer. Und darauf*  
 1393 *wiederum gründet letztlich das Ge-*  
 1394 *schäftsmodell des Konzerns. (Schilliger,*  
 1395 *2017)*

1396 (Our translation: The fact that Facebook  
 1397 has created these policies with such a  
 1398 level of precision and detail helps us to  
 1399 see how the company defines itself and  
 1400 is perhaps one of the clearest signs as to  
 1401 how it intends to achieve its mission as  
 1402 the world's do-gooder. Facebook de-  
 1403 clares that it wants to provide maximum  
 1404 opportunity for us to express our opin-  
 1405 ions and therefore imposes the minimum  
 1406 level of restrictions on us. It is this  
 1407 maxim which makes Facebook so attrac-  
 1408 tive to its consumers. And here, of  
 1409 course, lies the core of its business  
 1410 model.)

1411 Schilliger comes to the conclusion that it is Fa-  
 1412 cebook's business model, namely ensuring max-  
 1413 imum attractiveness to its users, which dictates  
 1414 how policies and decisions are made: in other  
 1415 words, the commercial ethics of 'maximising ad-  
 1416 vertising revenues and monetising as much gath-  
 1417 ered data as possible' overrides the societal eth-  
 1418 ics of 'respecting personal dignity' and 'sympa-  
 1419 thising with the individual in times of personal  
 1420 tragedy'. As discussed in relation to the phenom-  
 1421 enon of cultural differences in 'The Question of  
 1422 Intent in Joint Ventures and Acquisitions',  
 1423 (Robinson, 1993) differences of ethical stand-  
 1424 point can lead to irreversible interpretations of  
 1425 intent, often undesired ones. In the case at-hand,  
 1426 those who place their focus on societal ethics can  
 1427 interpret Facebook's commercial ethics and in-  
 1428 tent to be that of self-empowered commercial  
 1429 self-interest and indifference towards the power-  
 1430 less, insignificant individual.

1431 In effect, current developments in the application  
 1432 of digitalisation seem to constitute a continua-  
 1433 tion of the process of un-inventing the individual  
 1434 to which Nietzsche's works contributed at the

1435 end of the 19<sup>th</sup> Century. When, as mentioned  
1436 above, Nietzsche proclaimed that (Christian-  
1437 ity's) humans had killed the god whom they  
1438 themselves had created and that they had become  
1439 their own god in deeming themselves worthy of  
1440 doing so, arguably, he tried to circumvent the  
1441 logical consequence of his thesis, namely that  
1442 they had, at the same time, effectively 'killed'  
1443 themselves in wiping out the foundation for their  
1444 own individual ethical significance: his attempt  
1445 at circumvention manifests itself in his vision of  
1446 the reverse-Darwinist creation of the Super-Hu-  
1447 man. One is tempted to wonder if this would be  
1448 a new generation of 'jesus christ's' or of the 'self-  
1449 chosen few'. The vision of this Super-Human  
1450 which – Nietzsche leaves us to interpret – would  
1451 be the embodiment of the being which creates  
1452 the set of fundamentally new values, which he  
1453 posits as a necessity for the attainment of genu-  
1454 ine eternal autonomy and freedom, effectively  
1455 throws a black shadow of inferiority over the  
1456 contemporary human species: the latter is the  
1457 Last-Human, i.e. a creature of insurmountable  
1458 ethical inadequacy and thereby of moral insign-  
1459 nificance. Of necessity, Nietzsche's Super-Hu-  
1460 man must repudiate his/her/its parents/creators.  
1461 The parent-child bond, and with it the family, are  
1462 torn asunder. This atomisation of the human re-  
1463 lationship into independent constituents consti-  
1464 tutes a mental act and an ethical premise which  
1465 – not surprisingly given Nietzsche's rejection of  
1466 Christianity – stand in contradiction to one of the  
1467 ten commandments of the Hebrew Bible and  
1468 which, in the era of digitalisation, have far-  
1469 reaching consequences for self-understanding,  
1470 for individual mental health, for social unity, for  
1471 corporate culture and for further developments  
1472 in AI and SI.

1473 In parallel to the implications of the vision of the  
1474 Super-Human, the ethical premises and circular-  
1475 ity behind Nietzsche's vision of *amor fati* which,  
1476 etymologically at least, can be interpreted to  
1477 mean not only

1478 'love of fate', i.e. love of my fate and  
1479 that of others (whatever the nature of  
1480 that fate might be),

1481 but also

1482 'love of what has been said', i.e. by me  
1483 (and possibly by others?)

1484 could erase any remains of moral significance  
1485 which future society might otherwise have inher-  
1486 ited from the pre-Super-Human condition. In  
1487 positively affirming *amor fati* for the human  
1488 condition, Nietzsche was arguably implicitly and  
1489 positively affirming the human condition's futi-  
1490 lity. Nietzsche would appear then to have re-  
1491 placed the dualism of the 'is-entity' and the  
1492 'should-entity' with another, even more funda-  
1493 mental one, i.e. self-created meaningfulness and  
1494 self-created meaninglessness.

1495 The dismantling of the ethics of Christianity, a  
1496 religion which Nietzsche viewed in 'Der Anti-  
1497 christ' (Nietzsche, 1888) as being based on a ni-  
1498 hilistic worldview, and the dismantling of the  
1499 ethics of other forms of theism, brings with it a  
1500 deconstruction of the ethics of the credo upon  
1501 which modernism and liberal democracy were  
1502 built, i.e. the 'moral individual' (as defined be-  
1503 low).

1504 The notion that the Super-Human would 'trans-  
1505 valuate' or re-evaluate values, i.e. build ethics  
1506 from zero – that is, if the Super-Human were to  
1507 find the word and concept of 'ethics' at all ap-  
1508 propriate – seems, when we contemplate what  
1509 could emerge from AI, SI and singularity, very  
1510 similar to our contemporary predicament.

1511 It would not be surprising, therefore, to find that,  
1512 wherever our Nietzschean-like cluster of four  
1513 ethical premises underlies the creation and the  
1514 use of digital instruments such as the internet, so-  
1515 cial media, soft robots and other AI-artefacts, the  
1516 central pillar of liberal democracy – i.e. the  
1517 moral individual – is also progressively eroding.

1518 At this point, it is crucial that we differentiate be-  
1519 tween the concept of 'individuality' and that of  
1520 the 'moral individual', a distinction which is ex-  
1521 pounded by Larry Siedentop in his book entitled  
1522 'Inventing the Individual'. (Siedentop, 2014)  
1523 Here, Siedentop defines 'individuality' as an  
1524 aesthetic notion, the origins of which are to be  
1525 found in the Renaissance. The 'cult of individu-  
1526 ality', as he formulates it, is a cultural phenome-  
1527 non which gradually evolved through the later

1528 movements of humanism and secularism into its  
1529 fully-fledged, modernist state. In contrast to its  
1530 counterpart, the moral individual (which is de-  
1531 fined below), the phenomenon of individuality  
1532 seems today not to be eroding, but to be finding  
1533 increasing resonance in the space created in at-  
1534 omistic, utilitarian, secular and egalitarian seg-  
1535 ments of global society, where rationality, rea-  
1536 son and empiricism override ‘irrational’ belief  
1537 and ‘unreasoned’ moral convention, thereby de-  
1538 legitimising – or having little place for – the form  
1539 of regret, shame, bad conscience or guilt which  
1540 pervades the whole person’s BEING.

1541 It is in this new space that individuality can  
1542 thrive in the acts of both creation and consump-  
1543 tion of digital artefacts. Through the atomisation  
1544 of BEING, individuality has now become the  
1545 promotion, legitimisation and act of active self-  
1546 expression and individual happiness, whereby:

1547 *... individual wants or preferences are*  
1548 *taken as given, with little interest in the*  
1549 *role of norms or the socializing process.*  
1550 (Siedentop, 2014)

1551 In his treatise on ‘The Divided Individual in the  
1552 Political Thought of G.W.F. Hegel and Friedrich  
1553 Nietzsche’, which is the subtitle of ‘Infinite Au-  
1554 tonomy’, Jeffrey Church writes that Hegel ar-  
1555 gued individuality to be an ultimate consequence  
1556 of the atomisation and alienation of individuals:

1557 *Finally, this abstract thinking gives rise*  
1558 *to the liberal “atomistic” view of indi-*  
1559 *viduality, which in turn maintains and*  
1560 *deepens this loss of ethical life. Accord-*  
1561 *ing to the atomistic conception, freedom*  
1562 *simply consists in the subjective right to*  
1563 *particularity ... Communities that en-*  
1564 *shrine ethical meaning, such as the*  
1565 *state, are regarded as external imposi-*  
1566 *tions on individual freedom ... (Church,*  
1567 *2012) (p. 95)*

1568 In order to make as clear and as relevant a dis-  
1569 tinction as possible between ‘individuality’ and  
1570 the ‘moral individual’, we propose – following  
1571 Siedentop – that the latter involves a non-atom-  
1572 istic ethical premise whereby the individual’s

1573 personal, internalised ethics or ‘ethical inner-  
1574 ness’ plays a determining role in his/her physical  
1575 behaviour, attitudes and thoughts in alignment  
1576 with collective, societal ethical innerness. Thus,  
1577 this understanding of the moral individual in-  
1578 volves the holistic form of the concept of ‘integ-  
1579 rity’, a form which captures a form of authentic-  
1580 ity comprising both inner wholeness and moral  
1581 uprightness in society. The moral individual has  
1582 a moral conscience which is ‘one’ with that per-  
1583 son’s identity. Leaders in the Western world who  
1584 stray too far from the moral individual and lose  
1585 their ethical authenticity do so irreversibly at  
1586 their own peril, as we have seen with numerous  
1587 political figures such as Bill Clinton and Tony  
1588 Blair.

1589 In Dante’s ‘Divine Comedy’, which we referred  
1590 to in ‘If You Have A Vision’ (Robinson, 2016a),  
1591 one finds scores of examples of the moral indi-  
1592 vidual, each portrayed with particular succinct-  
1593 ness. Dante treats the physical body, the moral  
1594 character and the professional occupation of his  
1595 chosen figures in the ‘Divine Comedy’ as being  
1596 unavoidably – in the Nietzschean sense of self-  
1597 determined fate – ethically contingent upon, and  
1598 congruent with, each other. The manner in which  
1599 this one-ness, which is fundamental to the inven-  
1600 tion and concept of the moral individual, is de-  
1601 scribed and commented by Erich Auerbach in his  
1602 book ‘Dante, Poet of the Secular World’  
1603 (Auerbach, 2007) and serves as an illustration of  
1604 the converse of atomism, i.e. through holism and  
1605 ‘non-duality’. The latter, originally an ancient  
1606 Hindu and Buddhist notion, is expounded by Da-  
1607 vid Loy in his book ‘Non Duality’, (Loy, 1997)  
1608 and signifies a non-atomised state of BEING  
1609 from which ultimate integrity, one-ness and un-  
1610 contradictoriness emerge.

1611 It is particularly relevant at this point to note that  
1612 Dante conceived (i.e. gave birth to) his moral in-  
1613 dividuals and wove them into his poetic story-  
1614 line whilst he himself was subject to a strongly  
1615 theistic and strongly supremacy- and commer-  
1616 cially-driven, often simoniac social environ-  
1617 ment. In the vocabulary of our discussion, the  
1618 figureheads of this social environment had or-  
1619 dained that he should be banished from life in

1620 Florence since he had chosen not to affiliate him-  
 1621 self with the meritocratic Black Guelfs who sup-  
 1622 ported the papacy; as a result of his deeds and  
 1623 ethical leanings, he found himself in a self-in-  
 1624 flicted, permanent exile and a situation of the  
 1625 self-dis-enfranchisement of what he felt to be his  
 1626 natural identity.

1627 The ‘Divine Comedy’ reveals how Dante had  
 1628 started to reflect, as Nietzsche did six centuries  
 1629 later, on his perceptions of a lack of integrity in  
 1630 the practice of Christianity. This Christian envi-  
 1631 ronment was ruled on Earth at that time from the  
 1632 Vatican by the Bishop of Rome whom believers  
 1633 expected to be a moral role model. The incum-  
 1634 bent Bishop of Rome, Pope Boniface VIII, was  
 1635 Benedeto Caetani, a man whose legitimacy to  
 1636 hold such an office Dante fundamentally ques-  
 1637 tioned on ethical grounds. In the Divine Com-  
 1638 edy, Dante reveals that he perceives there to be a  
 1639 faith-shattering, disqualifying incongruence and  
 1640 contradictoriness between the individual, Bene-  
 1641 deto Caetano, and the holy office of the Bishop  
 1642 of Rome, not least because of the suspicion that  
 1643 this new pope had orchestrated a self-legitimised  
 1644 and self-legitimising power-grab from his prede-  
 1645 cessor, Pope Celestine V, Pietro Angelerio. As  
 1646 the Divine Comedy unfolds, one realises that  
 1647 Dante applies his poetic licence to paint each fig-  
 1648 ure, including Pope Boniface VIII, as an individ-  
 1649 ual whose self-inflicted, self-legitimised ethics  
 1650 are inextricably bound to their self-inflicted fate,  
 1651 for eternity. Dante, the dis-enfranchised exile, le-  
 1652 gitimises himself to be god and to ‘kill’, i.e. to  
 1653 dis-enfranchise at the core of identity, the figure  
 1654 whom he feels to be an ethically imposturous  
 1655 pope by allocating him a permanent place in Hell  
 1656 while he (the pope) was still alive. In affirma-  
 1657 tively assuming the role of the theistic authority  
 1658 which he has negated, Dante arguably erases the  
 1659 last remains of his own moral significance. He  
 1660 does so not only with unique, aesthetic, poetic  
 1661 skill, but also with an ‘as-if’ form of poetic li-  
 1662 cence which evolves into a truly visionary com-  
 1663 edy of human ethics. Positioned on the knife-  
 1664 edge which unites and divides the positive affir-  
 1665 mation of both existence and nihilism, this com-  
 1666 edy has inspired millions of people for almost  
 1667 seven hundred years. Deeply embedded within

1668 his comedy we find meaning and meaningless-  
 1669 ness juxtaposed. Dante plays with the centrality  
 1670 and the triteness of ethical premises, those vital  
 1671 yet tenuous ‘as-if’ phenomena posited by human  
 1672 BEING and capturing its essence – i.e. the as-if  
 1673 phenomena which can integrate into the ethical  
 1674 systems underlying individual and collective  
 1675 identity or disintegrate such identity, as we will  
 1676 explore below. The central role which as-if phe-  
 1677 nomena play in the creation and realisation of  
 1678 corporate and other visions is examined in depth  
 1679 in the article mentioned above (Robinson,  
 1680 2016a). What concerns us here is their role and  
 1681 attributes at the core of human ethics, as illumi-  
 1682 nated in the works of Dante and Nietzsche, and  
 1683 why a deep understanding of these phenomena  
 1684 could be sagacious for those contributing to  
 1685 and/or influenced by developments in AI and SI.  
 1686 We will return to these points in Section 2.

1687 The parallels between the ‘Divine Comedy’ and  
 1688 the works of Nietzsche (who made several refer-  
 1689 ences to Dante during his literary career) are  
 1690 striking at the level of the ethical premises which  
 1691 we have been discussing, i.e.

- 1692 - will to influence, including the inherent
- 1693 circularity in relation to legitimacy,
- 1694 - *amor fati*, (Rubin, 2004) (p. 127-130)
- 1695 - human aestheticism,
- 1696 - the inherent nihilism which underlies a
- 1697 positive, visionary, ‘as-if’ affirmation of
- 1698 life, (Robinson, 2016a)

1699 As a short illustration in recapitulation of what  
 1700 we have discussed so far, Robert Durling offers  
 1701 the following translation of Dante’s original  
 1702 lines in the ‘Paradiso’ section of the ‘Divina Co-  
 1703 media’:

1704 *And I would not have you doubt, but be*  
 1705 *certain; that to receive grace is merito-*  
 1706 *rious; according as the affect is open to*  
 1707 *it.*

1708 *E non voglio che dubbi, ma sia certo;*  
 1709 *che ricever la grazia è meritorio; se-*  
 1710 *condo l’affetto l’è aperto. (Durling,*  
 1711 *2011) (p. 581)*

1712 Condensed into just three aesthetic lines of po-  
1713 etic ‘as-if’ licence, Dante commences with the  
1714 ethical premise of the positive affirmation of hu-  
1715 man existence which finds expression in the self-  
1716 legitimised statement of personal will by the  
1717 speaker of whom Dante is enamoured, Beatrice.  
1718 This ethical premise of the will to influence is  
1719 then emphatically contextualised by not one, but  
1720 two explicit references to the paradigms of cer-  
1721 tainty-uncertainty and belief-doubt: clearly – as  
1722 with Kant’s ‘categorical imperative’ (Kant,  
1723 1871) – self-assigned faith, i.e. the human af-  
1724 firmative imperative, is contingent upon its  
1725 counterpart, nihilism. The human condition is  
1726 thus atomised, the moral individual un-invented,  
1727 Dante’s belief in integrity has been shattered into  
1728 the shards of as-if’s upon which human BEING  
1729 has landed with its tender feet. As also discussed  
1730 above in relation to Nietzsche’s works, the phe-  
1731 nomenon of human ethicality with its inherent  
1732 circularity becomes clear in the message that fate  
1733 comes to those who have the faculty for that par-  
1734 ticular fate, and hence for amor fati: merit comes  
1735 only to those who are meritorious, and those who  
1736 are not meritorious unavoidably find their own  
1737 self-inflicted fate – at no fault of the meritorious.  
1738 Not only does Dante portray the receiving and  
1739 the attaining of grace as being reciprocally con-  
1740 tingent, he pre-empts Nietzsche also with the as-  
1741 piration of humanity towards the attainment of  
1742 perfection and ethical meritocracy.

1743 Returning to Siedentop’s book, ‘Inventing the  
1744 Individual’ (Siedentop, 2014), we note that,  
1745 whilst he does not make any reference to the ‘Di-  
1746 vine Comedy’ or to Dante, he does underline the  
1747 significance of Pope Boniface VIII in relation to  
1748 the evolution of the moral individual. Siedentop  
1749 plots the creation of the moral individual in steps  
1750 which include the following:

1751 *Philip the Fair’s resistance to the theo-*  
1752 *cratic claims in Boniface’s bull, Unam*  
1753 *Sanctum, drew the attention of the whole*  
1754 *of Europe to constitutional issues. As a*  
1755 *result, the papal attempt to submit all*  
1756 *nations to its sovereign authority suf-*  
1757 *fered a serious and lasting reverse. (p.*  
1758 *328)*

1759 ... in its basic assumptions, liberal  
1760 thought is the offspring of Christianity.  
1761 It emerges as the moral intuitions gener-  
1762 ated by Christianity were turned against  
1763 an authoritarian model of the Church.  
1764 (p. 332)

1765 *Through innovations in thirteenth cen-*  
1766 *tury canon law, corporations came to be*  
1767 *understood as associations of individu-*  
1768 *als, ceasing to have an identity radically*  
1769 *independent of and superior to that of*  
1770 *their members. ... This was no atomized*  
1771 *individualism. Self-reliance and the*  
1772 *habit of association were joined. (p.*  
1773 *338)*

1774 *The church had projected the image of*  
1775 *society as an association of individuals,*  
1776 *an image which unleashed the centraliz-*  
1777 *ing process in Europe. (p. 346)*

1778 *It was through the creation of states that*  
1779 *the individual was invented as the pri-*  
1780 *mary or organizing social role. (p. 347)*

1781 In his treatise of the invention of the moral indi-  
1782 vidual, Siedentop’s lack of reference to the ethi-  
1783 cal legacy of either Dante or Nietzsche and –  
1784 whether the lack of reference was deliberate or  
1785 not – allows him to evade the thesis that the un-  
1786 inventing of the moral individual was induced by

- 1787 - Christianity’s negational suppression of
- 1788 natural passion and aestheticism,
- 1789 - its promise of conditional salvation from
- 1790 human sin in an after-life,
- 1791 - its atomisation of the family-unit and
- 1792 - its escape from humanity’s ethical inad-
- 1793 equacy through the non-human concep-
- 1794 tion of a superhuman.

1795 Whilst literature on the fate of the moral individ-  
1796 ual appears to be scarce, there is a wealth of pub-  
1797 lications on the erosion of values in contempo-  
1798 rary society, some of which – rationalists, in par-  
1799 ticular, might argue – need to be treated with  
1800 caution or skepticism. What most of these publica-  
1801 tions share, regardless of whether the contents  
1802 are based on empirical evidence or not, is the fact

1803 that their authors base their observations and the-  
 1804 ses on the premise that societal ethics **should** be  
 1805 preserved, i.e. on the premise that societal  
 1806 ‘shoulds’ and ‘should-nots’ have a legitimacy  
 1807 and are a necessity in guiding, condoning, toler-  
 1808 ating, rewarding, denouncing, censoring and  
 1809 punishing people’s mental and behavioural acts.

1810 From the perspective of anethicality which, as  
 1811 remarked earlier, lies outside the confines of  
 1812 solely human ethics, there are several phenom-  
 1813 ena at play in contemporary society which could  
 1814 explain the perception that societal values are in-  
 1815 deed eroding in many communities. These in-  
 1816 clude the likelihood that:

1817 - the principles of the market economy  
 1818 and digital development now pervade  
 1819 such vast segments of life and society  
 1820 that there has been a marked propor-  
 1821 tional shift from societal ethics to busi-  
 1822 ness and engineering ethics

1823 and

1824 - national and party politics as well as vot-  
 1825 ing at local and national elections are be-  
 1826 ing influenced in such a fashion by what  
 1827 is now termed ‘digital citizenship’ that  
 1828 the nation-state is being un-invented, cf.  
 1829 ‘Digital Citizenship and Political En-  
 1830 gagement’ by Ariadne Vromen  
 1831 (Vromen, 2017)

1832 Evidence of phenomena such as the first one can  
 1833 be found in research studies, e.g. at the Univer-  
 1834 sity of Bonn which concludes:

1835 *In markets, people ignore their individ-*  
 1836 *ual moral standards (...) This is the main*  
 1837 *result of the study. Thus markets result*  
 1838 *in an erosion of moral values. "In mar-*  
 1839 *kets, people face several mechanisms*  
 1840 *that may lower their feelings of guilt and*  
 1841 *responsibility," explains Nora Szech. In*  
 1842 *market situations, people focus on com-*  
 1843 *petition and profits rather than on moral*  
 1844 *concerns. Guilt can be shared with other*  
 1845 *traders. In addition, people see that oth-*  
 1846 *ers violate moral norms as well. (Falk,*  
 1847 *2017)*

1848 Michael Keating, professor of politics at Aber-  
 1849 deen University, sees a trend which is very  
 1850 closely linked:

1851 *The integrity of the nation-state has dis-*  
 1852 *integrated under the pressure of the*  
 1853 *world’s economic system. (Keating,*  
 1854 *2017)*

1855 Given Larry Siedentop’s observation that the  
 1856 emergence of the moral individual correlates  
 1857 with the emergence of the nation-state, it is com-  
 1858 prehensible that the un-invention of the one will  
 1859 go hand-in-hand with that of the other.

1860 Looking at the phenomenon of the extensive per-  
 1861 vasion of digitalisation and atomisation, could it  
 1862 be that we are indeed approaching ethical singu-  
 1863 larity, Nietzschean trans-valuation and entering  
 1864 into uncharted, supra-ethical or ethic-less terri-  
 1865 tory?

1866 Could it be that the more digitally-conditioned  
 1867 generations and segments of society are – per-  
 1868 haps inadvertently – indicating to their less digi-  
 1869 tally-conditioned counterparts, and society at-  
 1870 large, that the advent of AI and SI is challenging  
 1871 much more than merely the way in which values  
 1872 are assigned different priorities?

1873 Could it be that the legitimacy of, and the neces-  
 1874 sity for, ethical ‘shoulds’ and ‘should-nots’ are  
 1875 being challenged?

1876 Or, referring back to our earlier discussion, could  
 1877 it be that the appropriateness of any form of im-  
 1878 perative which emerges together with the mental  
 1879 act of a positive affirmation of human existence  
 1880 is being challenged?

1881 If Keating is right that the integrity of the nation  
 1882 state has disintegrated, (Keating, 2017) then so  
 1883 also the ethical integrity of the individual.

#### 1.4 Ethical integrity: Why have we invented such an impediment to ethical transformation?

1884 When a person A says that a person B lacks eth-  
1885 ical integrity, A often means that B has been be-  
1886 having in an unethical manner. A deems B's  
1887 thoughts and behaviour to stem from a set of val-  
1888 ues and ethical premises which are different to  
1889 A's and thereby bad. Sometimes, A means that  
1890 B has been erring from accepted ethical norms.  
1891 As these examples show, the term ethical integ-  
1892 rity can, on the one hand, be used to express eth-  
1893 ical divergence and exclusion. If, on the other  
1894 hand, A were to praise B on the grounds of  
1895 his/her ethical integrity, then A would be ex-  
1896 pressing feelings of ethical congruence and in-  
1897 clusion.

1898 In general terms, members of an ethical commu-  
1899 nity are expected to behave in an ethically ac-  
1900 ceptable and predictable fashion; community  
1901 members expect themselves and others to con-  
1902 form and tend to express their dislike – or even  
1903 abhorrence – of non-conformists in an ostracis-  
1904 ing manner.

1905 Being based on the premise of mono-ethicality,  
1906 the concept of ethical integrity serves to  
1907 strengthen intrinsic rigidity within systems of  
1908 ethical premises both in the individual and in the  
1909 community. The use of the term 'ethical integ-  
1910 rity' implies, of course, that ethical laxity and di-  
1911 vergence do indeed exist and also that they  
1912 should be avoided and admonished in the inter-  
1913 ests of the survival of the community: in other  
1914 words, the diversity, plurality and malleability of  
1915 human nature **should not** be left undisciplined.  
1916 Applying the terminology of our previous dis-  
1917 cussion, we can recognise that, for many centu-  
1918 ries, disciplined adherence to a specific set of as-  
1919 if ethical premises and conventions, i.e. ethical  
1920 integrity, serves to provide individuals and com-  
1921 munities with existential certainty. It follows that  
1922 ethical integrity inherently expresses the antici-  
1923 pation of – and, quite often, the fear of – existen-  
1924 tial uncertainty.

1925 Thus, it is reasonable to argue that ethical integ-  
1926 rity has been invented as a key criterion for so-  
1927 cial cohesion, identity and BEING by making

1928 human thoughts and behaviour either recipro-  
1929 cally predictable and trustworthy or fear-gener-  
1930 ating and untrustworthy: whilst ethical mallea-  
1931 bility and transformation run the danger of gen-  
1932 erating fear, untrustworthiness and existential  
1933 uncertainty (particularly in mono-theistically  
1934 conditioned cultures, (Robinson, 2014)) mono-  
1935 ethical integrity is a sine qua non for an affirma-  
1936 tive, certainty-creating and -preserving human  
1937 condition (both for individuals and communi-  
1938 ties) including affirmative nihilism. (Cioran,  
1939 2008)

#### 1.5 Uninventing ethics: Is the development of AI and SI challenging ethical integrity?

1940 What we are possibly now heading towards is an  
1941 age, already anticipated by the digitally-condi-  
1942 tioned generations, in which the mindset of cre-  
1943 ating existential certainty – through the assump-  
1944 tion of ethical premises as the concretisation of a  
1945 meaning to life – finds itself compelled to co-ex-  
1946 ist and interact with the artefacts of AI which ap-  
1947 parently have no such mindset, i.e. do not (need  
1948 to) search for a meaning to their existence, have  
1949 no emotion-binding ethics, have no need for cer-  
1950 tainty, but do have the capacity to process very  
1951 high volumes of data with no suppression of in-  
1952 formation through psychological factors or  
1953 through volume limitations due to restricted re-  
1954 trieval capacity.

1955 Could it be that a fundamental shift in global eth-  
1956 ics is already underway or, returning to the ear-  
1957 lier discussion, could it be, in the immediate term  
1958 at least, that a significant proportion of these sen-  
1959 sor- and algorithm-packed, probability-calculat-  
1960 ing AI-artefacts will simply remain instruments  
1961 of the ethics of human economic, political or ra-  
1962 cial supremacy?

1963 Some of the fears which are emerging in relation  
1964 to the latter scenario in particular have been cap-  
1965 tured by Jon Kofas and include the following:

1966 *Considering that most people will live in*  
1967 *the non-Western World, those in the*  
1968 *West will use AI as the pretext to keep*



1969	<i>wages low and exert their political, economic, military and cultural hegemony.</i>	2008	self-inflicted dis-enfranchisement, exclusion and/or nihilism for the rest of humanity
1970		2009	
		2010	
1971	<i>The universal presence of robots would mean the absence of self-determination and even the absence of humans collectively determining their own destiny.</i>	2011	until
1972		2012	the perfection of existence emerges through disjunctive development, e.g. a post-singularity, post-humanity state.
1973		2013	
1974		2014	
1975	<i>There is a case to be made that identity with the machine and emulating it leads to a necroculture distorting human values where inanimate objects have greater worth than human beings – materialism in a capitalist society over humanism of an anthropocentric society is the norm.</i>	2015	Currently, in accordance with the adage of ‘seeing is believing’, internet and media consumers process so much visual information about other people and cultures that they realise increasingly that their personal worldview is just one of a potentially infinite number. Through watching the world news and documentary films they see that humanity is so multi-religious, multi-secular, multi-atheist, multi-democratic etc. that no single worldview can be veritably valid – let alone universally valid – and certainly not their own.
1976		2016	
1977		2017	
1978		2018	
1979		2019	
1980		2020	
1981		2021	
1982		2022	
1983	<i>... human dignity would suffer across the board for all people subjected to AI robot surveillance and supervision.</i>	2023	
1984		2024	
1985		2025	
1986	<i>Will AI create war crime conditions much worse than we have ever seen, or will it be discriminating killing and destroying?</i>	2026	They also see that a high proportion of individuals and groups take ethics into their own hands with negligible levels of unified global recognition or sanctions; if there are any consequences at all, these can differ so widely from one culture, nation-state and geopolitical union to another that, even though the legal systems of most nation-states were designed to restrict it, individuality-based ethics and behaviour must be legitimate.
1987		2027	
1988		2028	
1989		2029	
1990	<i>There is a very real danger that governments will program AI to manipulate public opinion.</i>	2030	
1991		2031	
1992		2032	
1993	<i>Why would corporations not be using AI to manipulate consumers and increase profits? (Kofas, 2017)</i>	2033	
1994		2034	
1995		2035	
1996	Such fears could have their roots in an ethical standpoint which differs from the original cluster of ethical premises which we have been discussing. The fears implicitly warn us that, unless something changes at the level of core ethical premises, increasingly large segments of humanity could be following the path of the Nietzschean ethical footprints which ultimately end in	2036	They see beheadings, hangings, suicides, thefts, acts of rape and terrorism broadcast publicly in the media, alongside the live-filming of people being swept away to their deaths by natural disasters, alongside trillions of snapshots of people sunning themselves, enjoying their individuality and following their passions. They see uncountable documentary films about different worldviews or creatures – living, procreating, dying or already extinct – alongside one film after another re-casting previous versions of history, science and truth. They also see air-borne drones and earth-bound robots doing tasks – including outwitting the world’s best chess-players – with exponentially increasing levels of ‘dexterity’, precision, tirelessness, effectiveness, efficiency, calculatory and data-retrieval capacities which threaten to dwarf human capability
1997		2037	
1998		2038	
1999		2039	
2000		2040	
2001		2041	
2002		2042	
2003		2043	
2004		2044	
2005	supreme influence in the hands of those who legitimise themselves to take it	2045	
2006		2046	
		2047	
2007	and	2048	
		2049	
		2050	
		2051	
		2052	
		2053	

2054 into what may be felt to be humiliating insignif-  
2055 icance in numerous sectors of professional and  
2056 private life.

2057 Viewed from the perspective of the ethical prem-  
2058 ise of self-determination, the effects on consum-  
2059 ers of prolonged interaction with these media  
2060 and artefacts could include the stripping of their  
2061 dignity and the banalisation of their ethical in-  
2062 tegrity and personal identity. For people who  
2063 have been ethically conditioned to cherish the  
2064 premise of personal dignity, something which  
2065 even those in the more advanced stages of de-  
2066 mentia try to preserve for as long as possible, this  
2067 erosive process may have serious psychological  
2068 consequences. It is no coincidence that organisa-  
2069 tions which support people who wish to retain  
2070 their dignity by exercising self-determination in  
2071 relation to the termination of their own lives  
2072 have chosen names such as such as ‘Dignitas’  
2073 (which is based in Forch, Switzerland) and  
2074 ‘Death with Dignity’ (in Portland, USA).

2075 For many people, suicide or euthanasia are their  
2076 final earthly acts of ethical integrity, their will to  
2077 practice affirmative, self-legitimised certainty,  
2078 to achieve eternal autonomy and *amor fati*. The  
2079 powerless which they feel can be physical, psy-  
2080 chological and often both. Many suicide notes  
2081 express a need to autonomously put an end to the  
2082 inner torment of lost dignity, powerlessness or  
2083 heteronomy and thereby to assert their ethical in-  
2084 tegrity.

2085 The true motives behind the several suicides at  
2086 the annual Burning Man events in Nevada which  
2087 have reached the press are largely unknown, but  
2088 leave us wondering to what extent they were fi-  
2089 nal acts of ethical integrity or perhaps of ethical  
2090 nihilism. At the time of writing in 2017, there  
2091 was a poignant form of suicide at this event in-  
2092 volving a 41-year-old man who had been living  
2093 and working in Switzerland. According to the  
2094 accounts of witnesses which were reported in the  
2095 media, the man jumped over all of the safety bar-  
2096 riers and ran directly into the burning fire where  
2097 he literally became The Burning Man, and died.  
2098 It is common knowledge that this particular an-  
2099 nual event is well-frequented by the digital com-  
2100 munity and consciously promotes the radical  
2101 self-expression of individuality and the breaking

2102 of societal taboos. It is also well-known that  
2103 global suicide rates have been increasing over  
2104 the past 45 years and are currently highest in the  
2105 15-29 age-range. (WHO, 2017) In recognising  
2106 that the motives and reasons for suicide are  
2107 highly diverse, we do not intend here to suggest  
2108 any direct or causal link with the conceptual de-  
2109 sign or organisation of the Burning Man events.  
2110 However, in any society which regards the tak-  
2111 ing of one’s own life as undesirable, the active  
2112 promotion of ethical premises which underlie an  
2113 increased expression of individuality, self-deter-  
2114 mination and self-legitimacy and which, in turn,  
2115 could possibly lead to the erosion of personal  
2116 dignity and ethical integrity – thereby increasing  
2117 the numbers of suicides – would arguably war-  
2118 rant serious study.

2119 One question which certainly raises itself is how  
2120 both individuals and society at-large can most ef-  
2121 fectively come to terms with the erosion of ethi-  
2122 cal integrity if it does occur and if it is regarded  
2123 as undesirable – a matter which we have ad-  
2124 dressed in a separate article entitled ‘Ethik  
2125 Macht Krank’ (Ethics Makes Us Ill). (Robinson,  
2126 2017). At this point in the current discussion, it  
2127 may suffice to suggest that undesired develop-  
2128 ments could best be addressed through ap-  
2129 proaches based on different paradigms than  
2130 those which created them: premises and tech-  
2131 niques applied in education, management and  
2132 psychotherapy would arguably need to avoid  
2133 contributing ‘more of the same’ when addressing  
2134 undesired issues.

2135 A second question, which relates to the central  
2136 point which we are examining here, concerns the  
2137 extent to which the premise of legitimacy is per-  
2138 tinent: within that premise, one can ask which  
2139 entity or ‘authority’ it is which can legitimise it-  
2140 self, or others, and on which grounds, to catalyse  
2141 and reinforce – for vast segments of global soci-  
2142 ety – a potentially irreversible shift in ethical  
2143 premises from those which underlie the holistic  
2144 moral individual and holistic forms of theism to-  
2145 wards an increasingly atomised form of individ-  
2146 uality.

2147 As we have expounded above, it is this atomisa-  
2148 tion which constitutes the modernist founda-

2149 tional premise for phenomena such as self-deter-  
 2150 mination, self-empowerment, self-legitimisa-  
 2151 tion, self-validation, self-esteem, self-responsi-  
 2152 bility and the need for control as well as being a  
 2153 potential source of what are often regarded as  
 2154 psychological disorders such as ‘self-alienation’,  
 2155 ‘social alienation’ and the treatment of the self  
 2156 and others as ‘objects’.

2157 In a book entitled ‘Liberal Democracy as the End  
 2158 of History’, Christopher Hughes links individu-  
 2159 ality and nihilism as part of his treatise on post-  
 2160 modern challenges:

2161 *This libertarian desire to free ourselves*  
 2162 *from the constraints of being human has*  
 2163 *a distinctly Nietzschean flavour. ... A*  
 2164 *postmodern politics is nihilistic since it*  
 2165 *aims to break convention, rules, power*  
 2166 *and universals and realise individuals*  
 2167 *as self-determining beings who con-*  
 2168 *struct their own rules and ethics.*  
 2169 (Hughes, 2011)

2170 The example of suicide and euthanasia, as an ex-  
 2171 pression of self-determination, is one which  
 2172 shows very clearly how the question of legiti-  
 2173 macy can be argued consistently and circularly  
 2174 both from a libertarian perspective and from the  
 2175 perspective of ethical premises such as collec-  
 2176 tive-determination, theistic pre-ordination or  
 2177 the primordality of nature. Depending on which  
 2178 ethical premises apply, ethical integrity can le-  
 2179 gitimately either include or preclude the active  
 2180 termination of one’s own life – or helping others  
 2181 to do so. As discussed in other sections, includ-  
 2182 ing Section 1.4, ethical integrity, being a mono-  
 2183 ethical concept with a water-tight circular argu-  
 2184 mentation regarding legitimacy, is not only a  
 2185 safeguard against ethical laxity but also a hin-  
 2186 drance to meaningful inter-ethical dialogue and  
 2187 ethical transformation.

## 1.6 Ethical transformation: Lying in wait for centuries until the advent of AI?

2188 Writing two centuries ago, Giacomo Leopardi  
 2189 may have anticipated the transformation of hu-

2190 man ethics without having had the means to trig-  
 2191 ger it. In his voluminous notebook entitled  
 2192 ‘Zibaldone’ written between 1817 and 1832, we  
 2193 find numerous reflections by Leopardi which  
 2194 circumvent transformation impediments such as  
 2195 the concept of mono-ethical integrity and the cir-  
 2196 cular argumentation of legitimacy. Even though  
 2197 his works have probably been less widely read in  
 2198 global terms than those of Dante or Nietzsche, in  
 2199 literarian and ethical terms, Leopardi can be de-  
 2200 scribed as a lineal descendant of Dante and a lin-  
 2201 eal ascendant of Nietzsche – see also ‘Emerson’s  
 2202 Knowledge of Dante’. (Mathews, 1942 No. 22)  
 2203 In his notes, Leopardi repeatedly deliberates on  
 2204 the visionary ethical legacy to be found five hun-  
 2205 dred years earlier in Dante’s ‘Divine Comedy’  
 2206 through which Christianity turns out to be both a  
 2207 creator of ownerless aesthetic illusion (Pfaller,  
 2208 2014) and a birthplace of nihilism. Leopardi con-  
 2209 tinues in the same vein and progressively dis-  
 2210 mantles the legitimacy of the dualistic ethical  
 2211 paradigms of ‘truth-untruth’ and ‘certainty-un-  
 2212 certainty’. More than one hundred years before  
 2213 the building of Unimate, the world’s first digital  
 2214 and programmable robot, Leopardi points to-  
 2215 wards a futile, anaesthetic existence which sci-  
 2216 entific rationalism and technological develop-  
 2217 ment has in store for humanity. In his article en-  
 2218 titled ‘The Nietzsche of Recanati’, David Hart  
 2219 formulates Leopardi’s conclusions as follows:

2220 *The principle culprit is Christianity ...*  
 2221 *and ... The curse of scientific reasoning*  
 2222 *has rendered the world uninhabitable*  
 2223 *for us. (Hart, 2014)*

2224 Very early in his notes, Leopardi escapes from  
 2225 the circularity of a certain number of humanity’s  
 2226 self-created ethical premises:

2227 *A further sad consequence of society and*  
 2228 *the civilization of humanity is a precise*  
 2229 *awareness of our own age and that of*  
 2230 *our loved ones, so that we can know with*  
 2231 *certainty that so many years from now*  
 2232 *... I will certainly die or they will die. ...*  
 2233 *It is something that makes ... (one’s) sit-*  
 2234 *uation like that of a condemned prisoner*  
 2235 *and infinitely diminishes nature’s great*  
 2236 *generosity in concealing the exact time*

2237 *of our death, which if seen with preci-*  
 2238 *sion would be enough to paralyze us*  
 2239 *with fright and dishearten us for our*  
 2240 *whole life. (Baldwin, 2013) (p. 93)*

2241 In contrast to the positing of certainty-uncer-  
 2242 tainty-based premises and visions such as a Su-  
 2243 per-Human or a one-way ticket on a rocket to  
 2244 Mars (Singularity University, 2017), Leopardi’s  
 2245 reflections tend towards anethicality and a-legit-  
 2246 imate premiselessness. He cancels out as-if cer-  
 2247 tainty and fear-avoidance and breaks out of the  
 2248 dichotomous atomisation in meaningfulness and  
 2249 meaninglessness. Human BEING and nothing-  
 2250 ness entail an aesthetic *amor fati* within nature’s  
 2251 benevolence. Could it be that Giacomo Leopardi  
 2252 anticipated ethical singularity nearly two hun-  
 2253 dred years ago, or did he stop short of escaping  
 2254 from the ethical premise of aesthetics as the  
 2255 meaning to existence, just as Dante had done, as  
 2256 Nietzsche would do after him and as scientists,  
 2257 engineers and others have also been doing for  
 2258 centuries?

2259 The appeal of the term singularity, and its use by  
 2260 scientists in particular, can be an expression of  
 2261 seeking a deep order in life and the universe  
 2262 along the lines of Mary Somerville’s thinking in  
 2263 ‘On the Connexion of the Physical Sciences’?  
 2264 (Somerville, 1834)

2265 One finds a similar searching for order in Ed-  
 2266 ward O. Wilson’s deliberations in ‘Consilience:  
 2267 The Unity of Knowledge’ (Wilson, 1998) and  
 2268 also in Peter Watson’s reflections in ‘Conver-  
 2269 gence: The Deepest Idea in the Universe’.  
 2270 (Watson, 2016)

2271 Not only the fact that humans seek a deep order,  
 2272 but also the manner in which many have been  
 2273 doing so, is of ethical significance, as Ciprian  
 2274 Valcan notes in relation to the works of Emil  
 2275 Cioran:

2276 *Like Nietzsche, Cioran notices the uni-*  
 2277 *tary nature of the productions of the in-*  
 2278 *tellekt. They act as filters which prevent*  
 2279 *the perception of plural reality and the*  
 2280 *incessant evolution of all things, build-*  
 2281 *ing the edifice of a stable world, homo-*  
 2282 *geneous and identical with itself. If the*

2283 *world is in fact an infernal succession of*  
 2284 *sensations, a terrible carousel of always*  
 2285 *obsolete forms, a theatre of uniqueness*  
 2286 *and of the unrepeatable, our gnosiolog-*  
 2287 *ical apparatus constantly works on the*  
 2288 *skilful deformation of these aspects of*  
 2289 *existence. It suggests their replacement*  
 2290 *with a comfortable image, in which con-*  
 2291 *stancy, continuity, measurability, pre-*  
 2292 *dictability are the main pillars that make*  
 2293 *people confidently believe that they are*  
 2294 *walking on safe ground ...*

2295 *The mission of concepts is to pacify the*  
 2296 *world, to make it into a province of the*  
 2297 *self where there is no room for unpre-*  
 2298 *dictability or accident, where everything*  
 2299 *abides by the laws of reason, following*  
 2300 *their immutable order and refusing the*  
 2301 *interference of affectivity or sensitivity.*  
 2302 (Valcan, 2008).

2303 By positing technological singularity, scientists  
 2304 could be affirming an as-if certainty, namely a  
 2305 stringently reflected prediction and a potentially  
 2306 truly visionary vision that a post-singularity state  
 2307 will emerge through the development of AI and  
 2308 SI in a form which we logically cannot predict.  
 2309 In the event that this happens – whether sooner  
 2310 or later – the scientists who posited and/or pre-  
 2311 dicted singularity will have been right, just as  
 2312 those who conceived chaos theory, for example,  
 2313 were also proven right. Thus, certainty, rightness  
 2314 and ethical integrity prevail. In prevailing by vir-  
 2315 tue of the circularity in the argumentation of the  
 2316 legitimacy of the chosen set of premises, the  
 2317 mono-ethical foundation of singularity is eter-  
 2318 nalised and dialogue with other such systems is  
 2319 essentially futile. As with the Nietzschean-like  
 2320 cluster of ethical premises which, as discussed,  
 2321 quite possibly underlie a major sector of contem-  
 2322 porary developments in digitalisation, AI and SI,  
 2323 nothing fundamental changes at the ethical level:  
 2324 there is no ethical transformation and – like digi-  
 2325 tal transformation, AI and SI – the posited, or-  
 2326 der-motivated singularity remains a tool for  
 2327 those who have the faculty for using it in accord-  
 2328 ance with their respective ethics, such as engi-  
 2329 neering or business ethics or a mixture of both.  
 2330 Those who lack this faculty exclude themselves

2331 at no fault of the self-empowered, self-included,  
 2332 self-determiners.

2333 For others, the positing of singularity and their  
 2334 personal involvement in contemporary develop-  
 2335 ments in digitalisation, AI and SI may have noth-  
 2336 ing to do with the scientific pursuit of order or  
 2337 affirmative self-determination and reverse Dar-  
 2338 winism, but, for example, with the aestheticism  
 2339 of human BEING in accepting the whims of  
 2340 higher authority. In the Introduction to the Ox-  
 2341 ford translation of Homer’s Iliad by Anthony  
 2342 Verity, Barbara Graziosi remarks:

2343 *This poem confronts, with unflinching*  
 2344 *clarity, many issues that we had rather*  
 2345 *forget altogether: the failures of leader-*  
 2346 *ship, the destructive power of beauty, the*  
 2347 *brutalizing impact of war, and – above*  
 2348 *all – our ultimate fate in death ... the*  
 2349 *poem is much concerned with how au-*  
 2350 *thority is established, questioned, and*  
 2351 *maintained.*

2352 Graziosi then quotes from the Old Babylonian  
 2353 version of the Epic of Gilgamesh:

2354 *“You will not find the eternal life you*  
 2355 *seek. When the gods created mankind,*  
 2356 *they appointed death for mankind, kept*  
 2357 *eternal life in their own hands.”*

2358 The ethical premises in these citations differ  
 2359 strongly from those of the Nietzschean-like clus-  
 2360 ter discussed above. In the final chapter of the  
 2361 Iliad itself, we find two central figures, Achilles  
 2362 and Priam, sharing a meal and taking pleasure in  
 2363 each other’s company, i.e. the ethics of aestheti-  
 2364 cism in what Graziosi terms ‘pleasure in the af-  
 2365 firmation of life in the face of death’. (Verity and  
 2366 Graziosi, 2011)

2367 Figures like Achilles and Priam, living today and  
 2368 basing their BEING on such ethical premises as  
 2369 these are unlikely to regard digitalisation, AI and  
 2370 SI as a tool for their own ends. Instead, they  
 2371 might see AI-artefacts as perhaps an instrument  
 2372 of power which is owned, governed and applied  
 2373 by the super-human, included beings, to which  
 2374 they do not belong.

2375 Although strikingly different from the Nie-  
 2376 tzschean-like cluster of ethical premises, we can  
 2377 nevertheless recognise also here an ethical  
 2378 thread which stretches through the works which  
 2379 we have been discussing from Homer to Dante  
 2380 to Leopardi to Nietzsche and to Cioran, i.e.

2381 that the as-if belief in a metaphysical or  
 2382 super-human authority, the as-if autono-  
 2383 mous assumption of self-determination  
 2384 and the as-if appreciation of aestheti-  
 2385 cism are all ways of positing/creating  
 2386 certainty in what can be perceived as an  
 2387 otherwise groundless indeterminacy and  
 2388 uncertainty.

2389 The human condition is therewith atomised bi-  
 2390 narily through the as-if duality of certainty ver-  
 2391 sus uncertainty which itself mirrors an under-  
 2392 standing of the human condition which sharply  
 2393 dichotomises, as we have been discussing, be-  
 2394 tween

- 2395 - life and death (and/or life and after-life),
- 2396 - rightness and wrongness (and/or good
- 2397 and evil),
- 2398 - should and should not,
- 2399 - legitimacy and illegitimacy,
- 2400 - autonomy and heteronomy,
- 2401 - determinacy and indeterminacy,
- 2402 - order and disorder,
- 2403 - predictability and unpredictability,
- 2404 - meaningfulness and meaninglessness,
- 2405 - trust and mistrust,
- 2406 - inclusion and exclusion,
- 2407 - ethical and unethical thoughts and be-
- 2408 haviour.

2409 Having explored the ethical premises, including  
 2410 such binary atomisation, upon which a major  
 2411 section of contemporary developments in digi-  
 2412 talisation, AI and SI seem to be based and having  
 2413 explored certain chapters of our ethical heritage  
 2414 in order to provide deeper insight into these eth-  
 2415 ical premises, we propose that the advent of AI  
 2416 and SI has the potential to catalyse ‘ethical sin-  
 2417 gularity’ and thereby re-roll the ethical super-  
 2418 dice which we first mentioned in the Introduc-  
 2419 tion – albeit, like global warming, arguably al-  
 2420 most too late. The reasons behind offering this

2421 proposal include the fact that artefacts of arti-  
 2422 cial/machine intelligence do not currently – and  
 2423 perhaps never will – function with the type of  
 2424 emotion-binding existential terror which, as will  
 2425 be discussed below, characterises the contempo-  
 2426 rary human condition in vast segments of the  
 2427 world. Accordingly, unless it were programmed  
 2428 into them by humans, humanoid robots would  
 2429 not need to seek existential meaning or certainty  
 2430 in ways in which human-beings do. There is no  
 2431 a priori need for AI-artefacts to function mono-  
 2432 ethically, nor to base their interactions among  
 2433 themselves or with humans on e.g. trust or inclu-  
 2434 sion.

2435 Thus, if developments such as SI could provide  
 2436 ways of processing information in ways which  
 2437 are not exclusively binary and atomistic, human-  
 2438 ity would gain the opportunity to observe how  
 2439 technology-aided forms of intelligence can learn  
 2440 to operate anethically, i.e. ethically neutrally, in  
 2441 what looks likely to remain a multi-ethical envi-  
 2442 ronment for centuries, if not millennia, to come.  
 2443 As stated in the Introduction, we have not been  
 2444 exploring how human ethics and humanitarian  
 2445 law can be programmed top-down into AI-arte-  
 2446 facts such as robots, the primary reason being to  
 2447 be able to focus on exploring where the applica-  
 2448 tion of significant trends in contemporary human  
 2449 ethics originated, where they may be leading and  
 2450 how digitalisation, AI, SI and singularity might  
 2451 contribute to visionary ethical transformation.

2452 In Section 2, based on these reflections, we will  
 2453 illuminate some of the major challenges now  
 2454 facing the supervisory and executive boards of  
 2455 leading organisations around the world.

2456 In closing this current Section, we also propose  
 2457 that if ethical transformation is indeed deemed  
 2458 desirable or necessary, one might consider ex-  
 2459 ploring the as-if character inherent in all ethical  
 2460 premises from the following perspective. If vast  
 2461 segments of global society can recognise that  
 2462 they have been conditioned to lay systems of im-  
 2463 permeably interlocked as-if premises as the  
 2464 foundation of an as-if certainty for life – i.e. as  
 2465 their ‘living hypothesis’ – then they will also rec-  
 2466 ognise that behind this hypothesis for BEING  
 2467 lies an as-if premise of uncertainty. Moreover,

2468 particularly in atomistically conditioned socie-  
 2469 ties, this as-if premise of uncertainty may have  
 2470 been ignored in their conditioning, not least by  
 2471 those religious institutions which have arguably  
 2472 instrumentalised people’s fears and ‘existential  
 2473 terror’ for their own ‘raison d’être’. However, to  
 2474 recognise and accept that as-if certainty and as-  
 2475 if uncertainty belong together, that there cannot  
 2476 be one without the other, just as there can be no  
 2477 positivity towards life without negativity – i.e.  
 2478 no existentialist affirmation without nihilism –  
 2479 can potentially lead to a re-understanding of BE-  
 2480 ING through

2481           relativising the current dominance of  
 2482           andro- and anthropocentrism in ethics  
 2483           and thereby

2484           integrating biocentrism and ecocentrism  
 2485           into a form of ethics which is not based  
 2486           on the earthly life-span and needs of the  
 2487           human-being

2488           reducing the current dominance of the  
 2489           workings and effects of the human neo-  
 2490           cortex, its consciousness, its existential  
 2491           why-ness, its search for fulfilment and  
 2492           dignity and, perhaps above all, its as-if-  
 2493           ness on this planet’s BEING.

2494           Existential terror based on the ultimate uncer-  
 2495           tainty of human BEING might then be relativ-  
 2496           ised so as to make place, in the first instance, for  
 2497           an equivalent existential terror of

2498           -   the products of human strivings for cer-  
 2499           tainty

2500           and

2501           -   the denial of human temporality.

2502           In the longer term, both forms of terror might  
 2503           cancel each other out.

**2. What challenges to current thinking and ethics could the supervisory and executive boards of organisations around the world feel obliged to address and resolve at the level of corporate ethics before it is too late?**

2504 The reflections in the previous section allow us  
 2505 to pinpoint several key challenges to current  
 2506 thinking and ethical premises in both business  
 2507 and society at-large which are emerging from de-  
 2508 velopments in digitalisation, AI and SI – chal-  
 2509 lenges which arguably require immediate atten-  
 2510 tion and proactive tangible resolution by em-  
 2511 ployers. Whilst the following examples are  
 2512 mostly taken from the fields of digitalisation and  
 2513 AI and, in particular, from soft robotics, the eth-  
 2514 ical insights can be transferred to organisations  
 2515 working at the periphery of these fields and be-  
 2516 yond.

**2.1 The Challenge of Legitimacy: Corporate Ethicality Questions**

2517 One of the most central corporate ethicality chal-  
 2518 lenges concerns the legitimacy of adopting and  
 2519 pursuing a certain set of ethical premises, partic-  
 2520 ularly in an age in which one particular set al-  
 2521 ready commands a dominant position in the  
 2522 economy and society at-large, including educa-  
 2523 tion, finance, health, leisure, mobility, politics  
 2524 and technology. Few managerial boards can af-  
 2525 ford to ignore the opportunities and risks of ubiq-  
 2526 uitous connectivity or digital transformation –  
 2527 such as big-data exploitation and the maximally  
 2528 autonomous robotisation of manufacturing- and  
 2529 service-tasks – on the organisations for which  
 2530 they carry a legal, economic and/or moral re-  
 2531 sponsibility. However, in addressing these op-  
 2532 portunities and risks, the senior managers of  
 2533 companies including those which operate on the  
 2534 periphery of the main thrust of digital develop-  
 2535 ment – as in Switzerland and many other coun-  
 2536 tries around the world – are faced with at least  
 2537 four ‘corporate ethicality questions’:

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1. How do they legitimise joining the ethical mainstream (e.g. a Nietzschean-like cluster of ethical premises) or taking another course?
2. What argumentation do they use when laying the foundations for the future ethical footprints of their organisation – and what alternative argumentation could they use?
3. To whom do they feel accountable at present – and on what ethical premises do the parties to whom they feel accountable base their judgements?
4. Which individuals or groups could one day make them positively accountable for ethical foresight or negatively accountable for ethical negligence – and on what grounds?

2557 We propose that the answering of these ques-  
 2558 tions deserves a different approach to ones which  
 2559 are commonly practised such as calculating the  
 2560 financial risks for legal and ethical transgres-  
 2561 sions and building them into profit margins or  
 2562 assessing the likelihood of laws and regulations  
 2563 catching up with changes in societal ethics.

2564 In a report entitled ‘Risk and Reward - Temper-  
 2565 ing the Pursuit of Profit’ published by the Asso-  
 2566 ciation of Chartered Certified Accountants  
 2567 (ACCA), the balancing act between societal and  
 2568 business ethics which managerial boards now  
 2569 face is formulated as follows:

2570 *It is not reasonable to expect businesses*  
 2571 *to act altruistically.*

2572 *A business that voluntarily forgoes eco-*  
 2573 *nomic opportunities will not only jeop-*  
 2574 *ardise its own existence but may well*  
 2575 *harm the interests of its shareholders,*  
 2576 *and invite legal action from them for do-*  
 2577 *ing so.*

2578 *But developments in company law, the*  
 2579 *regulatory environment and stakeholder*  
 2580 *engagement are now combining to make*  
 2581 *it clear that a company which fails – or*  
 2582 *refuses – to see the fuller picture and the*  
 2583 *longer-term prospect will not be acting*

2584 *in the best interests either of itself or of*  
 2585 *its investors.*

2586 ... *‘doing the right thing’... is where*  
 2587 *business ethics really come in. Knowing*  
 2588 *what the right thing is will often be*  
 2589 *straightforward and unproblematic in*  
 2590 *our personal lives, but the dynamics of*  
 2591 *the business environment ... make it*  
 2592 *more difficult. Knowing what the right*  
 2593 *thing is can also appear easier with*  
 2594 *hindsight after one has knowingly or un-*  
 2595 *wittingly crossed an invisible line of*  
 2596 *transgression.*

2597 *Ethical policies and practices need to be*  
 2598 *appropriate to the environment in which*  
 2599 *the business operates, which means that*  
 2600 *government and regulators are not nec-*  
 2601 *essarily the right source of ethical guid-*  
 2602 *ance.* (Davies et al., 2010)

2603 Whilst opinions might vary on matters such as

- 2604 - what the future role of the nation-state  
 2605 and its jurisdiction will be, given the im-  
 2606 pact of social media, e-democracy,  
 2607 blockchain, cryptocurrencies etc., see  
 2608 ‘Whither the Nation State’ by Sebastian  
 2609 Payne (Payne, 2017)
- 2610 - how organisations should function,  
 2611 given the impact of
  - 2612 ○ digital transformation on
  - 2613 manufacturing and service
  - 2614 industries,
  - 2615 ○ agility, holacracy and digi-
  - 2616 talisation on the workplace,
  - 2617 the prevalence of individu-
  - 2618 ality on society at-large,
  - 2619 ○ the vociferousness of peo-
  - 2620 ple who feel dis-enfranch-
  - 2621 ised by globalisation and
  - 2622 digitalisation
  - 2623

2624 and

- 2625 - how these current developments will im-
- 2626 pact on the physical and mental health of
- 2627 the working and non-working popula-
- 2628 tion

2629 it is arguable that organisations which employ  
 2630 people currently represent one of the most sig-  
 2631 nificant sources of social cohesion, existential  
 2632 purpose and financial security in the lives of a  
 2633 significant proportion of world citizens. This  
 2634 means that the owners and board members of  
 2635 most employer-organisations, in the Western  
 2636 world at least, face the challenge of how to bal-  
 2637 ance societal and business ethics within a global  
 2638 environment which is currently showing strong  
 2639 signs of attraction towards anarcho-capitalism,  
 2640 i.e. a distrust of nation states and the undoing of  
 2641 the perceived dis-enfranchisement of the indi-  
 2642 vidual – a challenge which requires ever-increas-  
 2643 ing levels of acumen in the field of ethics, in-  
 2644 cluding the dimension of the ethics of non-com-  
 2645 mercially motivated, perhaps gnosiological, sci-  
 2646 entific and engineering enquiry and pursuit, e.g.  
 2647 where digitalisation and AI are furthered in their  
 2648 own right without any social, commercial or po-  
 2649 litical motives. In the following discussion, we  
 2650 will employ the term ‘engineering ethics’ to con-  
 2651 vey the latter and thereby also underscore a sig-  
 2652 nificant differentiation between societal, busi-  
 2653 ness and engineering ethics. In so doing, we are  
 2654 mindful of figures such as Alfred Nobel who en-  
 2655 gineered armaments based on his invention of  
 2656 dynamite; also of Julius Robert Oppenheimer  
 2657 who played a major role in engineering the tech-  
 2658 nology from which the atomic bomb was created  
 2659 and used by others in a form of ethics which led  
 2660 him later to cite (an often-misunderstood trans-  
 2661 lation of) the Bhagavad Gita:

2662 *Now I am become Death, the destroyer*  
 2663 *of worlds.* (Hijiya, 2000)

2664 In the Civil Law Rules on Robotics of the Euro-  
 2665 pean Parliament, which we referred to earlier, we  
 2666 find the challenge of how to balance societal, en-  
 2667 gineering and business ethics portrayed very viv-  
 2668 idly as follows:

2669 ... *humankind stands on the threshold of*  
 2670 *an era when even more sophisticated ro-*  
 2671 *bots, bots, humanoids and other mani-*  
 2672 *festations of artificial intelligence*  
 2673 *(“AI”) and ... it is vitally important for*  
 2674 *the legislature to consider its legal and*  
 2675 *ethical implications and effect without*  
 2676 *stifling innovation*



2677 ... (there are) not only economic ad-  
 2678 vantages but also a variety of concerns  
 2679 regarding their direct and indirect ef-  
 2680 fects on society as a whole ...

2681 ... (there are) new liability concerns ...  
 2682 (for example) the legal liability of vari-  
 2683 ous actors concerning responsibility for  
 2684 the acts and omissions of robots ...

2685 ... the trend towards automation re-  
 2686 quires that those involved in the devel-  
 2687 opment and commercialisation of AI ap-  
 2688 plications build in security and ethics at  
 2689 the outset ...

2690 ... the use of robotics ... should be seri-  
 2691 ously assessed from the point of view of  
 2692 human safety, health and security; free-  
 2693 dom, privacy, integrity and dignity; self-  
 2694 determination and non-discrimination,  
 2695 and personal data protection ...  
 2696 (European Parliament, 2017)

2697 Linking to our discussions in Section 1, we pro-  
 2698 pose that the complexity of the challenges to sen-  
 2699 ior management – whether they currently have a  
 2700 high level of digitalisation and of AI in their own  
 2701 operations or not – now takes on a further dimen-  
 2702 sion as artificial intelligence, artificial ethics, su-  
 2703 perhuman intelligence and superhuman ethics  
 2704 begin to establish themselves firmly in profes-  
 2705 sional, private and political life. The new ethical  
 2706 challenge concerns the legitimacy of deciding  
 2707 not merely on the extent to which they should, or  
 2708 could, participate in the switch from being an  
 2709 employer of human-beings and a benefactor to  
 2710 family well-being to being an applier of technol-  
 2711 ogy and a beneficiary of digitalisation, but also  
 2712 the extent to which they should, or could, em-  
 2713 brace non-humanness into their *raison d'être* and  
 2714 understanding of ethics, as expounded in the  
 2715 concluding remarks to Section 1.

## 2.2 The Challenge of Multi-Ethicality: Singularity Tragedy or Singularity Comedy?

2716 The complexity of legitimacy is somewhat inten-  
 2717 sified by the fact that the outer world of any or-  
 2718 ganisation is already factually multi-ethical and  
 2719 perhaps also its inner world, as we have dis-  
 2720 cussed in depth elsewhere. (Robinson, 2014)  
 2721 (Robinson, 2016) Certainly, senior management  
 2722 has the opportunity to be cognisant of the in-  
 2723 creasing prevalence of individuality and the con-  
 2724 comitant increase in multi-ethicality in many  
 2725 segments of national and global society – a trend  
 2726 which may be linked, at least in part, to the ex-  
 2727 ponential developments in immediacy and ubiq-  
 2728 uity which the internet and digital artefacts have  
 2729 made possible. Simultaneously, senior manage-  
 2730 ment may need to be cognisant of the aspirations  
 2731 of nation states and their leaders, of commercial  
 2732 and financial institutions as well as of certain so-  
 2733 called criminal forces which, for motives which  
 2734 might include an unwillingness to relinquish  
 2735 sovereignty, are actively exploiting movements  
 2736 such as e-democracy and anarcho-capitalism to  
 2737 their own ends, thus re-centralising power and/or  
 2738 re-institutionalising authoritarianism in society –  
 2739 as is observed by social critics and authors such  
 2740 as Adam Greenfield in ‘Radical Technologies’.  
 2741 (Greenfield, 2017)

2742 As a concrete reflection concerning changes of  
 2743 thinking among senior managers, should the lat-  
 2744 ter anticipate and prepare an alignment of corpo-  
 2745 rate ethical premises with those of autocracy and  
 2746 higher authority in the wake of those of ho-  
 2747 locracy? To underscore this reflection, it is per-  
 2748 haps worth noting that one of Silicon Valley’s  
 2749 key figures in autonomous robotics, Anthony  
 2750 Levandowski, has formally founded a religion  
 2751 which is devoted to the worship of the godhead  
 2752 of Artificial Intelligence. (Harris, 2017) Further-  
 2753 more we note that, at a different time in history,  
 2754 certain world figures who practised political au-  
 2755 thoritarianism had previously – and seemingly  
 2756 paradoxically – found personal intellectual nour-  
 2757 ishment in the anti-authoritarian works of Frie-  
 2758 drich Nietzsche, as expounded in Section 1.

2759 Whilst the ethics of autonomous individuality lie  
 2760 behind much of the development of digitalisa-  
 2761 tion, AI and SI and whilst they may have an im-  
 2762 mense impact on the ethics and modes of think-  
 2763 ing of billions of people around the world, the  
 2764 likelihood that the world’s population will ever  
 2765 become mono-ethical is less than minute: in-  
 2766 deed, societal movements against digitalisation  
 2767 and globalisation are likely to manifest them-  
 2768 selves more and more strongly and thereby con-  
 2769 tribute to a variety of counter-balancing effects  
 2770 in the field of ethics and ethical diversity. Bar-  
 2771 ring the extinction of humanity, which would  
 2772 certainly constitute a **‘Singularity Tragedy’** for  
 2773 the human species, the notion of reaching a sin-  
 2774 gle global ethical dot, following which human  
 2775 coexistence is unrecognisably re-evolutionised,  
 2776 is likely to remain a **‘Singularity Comedy’** – in  
 2777 both the humorous and the happy-end sense of  
 2778 that term. Accordingly, a further item can be  
 2779 added to the four corporate ethicality questions  
 2780 for senior management listed above, i.e.

- 2781 5. how do they address the factor of
- 2782 multi-ethicality, including artificial
- 2783 and superhuman intelligence, when
- 2784 developing the code of ethics, vi-
- 2785 sion, culture and strategy of their or-
- 2786 ganisation?

2787 Given questions, reflections and insights such as  
 2788 these, given also the immense wealth of business  
 2789 and engineering opportunities which digitalisa-  
 2790 tion offers and not forgetting either the warnings  
 2791 given by Stephen Hawking and others (as cited  
 2792 in the previous section) or potential risks to the  
 2793 mental health of employees and society at-large,  
 2794 it is arguable that company owners and their  
 2795 managerial boards now require an even deeper  
 2796 understanding of the ethical premises which un-  
 2797 derlie their corporate activities and their techno-  
 2798 logical, business and social environments than  
 2799 ever before. For the purpose of precision, we  
 2800 stress that the use of the term ‘ethical premises’  
 2801 refers primarily to the type of deep-level phe-  
 2802 nomena which we have been discussing in Sec-  
 2803 tion 1 – phenomena which can constitute the ‘in-  
 2804 visible lines of transgression’ mentioned in the  
 2805 ACCA report above. Whilst it can be posited that  
 2806 an in-depth understanding of ethical premises is

2807 necessary, it is likely to be insufficient unless  
 2808 senior-management also knows how to apply  
 2809 that understanding to the ethical re-crafting of  
 2810 their business model and its dovetailing with  
 2811 their new code of ethics, vision, culture and strat-  
 2812 egy. One of the key competence-clusters which  
 2813 people of responsibility could draw on when ad-  
 2814 dressing the new challenges and answering the  
 2815 five corporate ethicality questions is that of ethi-  
 2816 cal competence, inter-ethical competence and  
 2817 anethicality.

2818 ‘Ethical competence’ is defined here as the  
 2819 ability to think and behave in a manner  
 2820 which is regarded by a given ethical commu-  
 2821 nity as being appropriate within that commu-  
 2822 nity: ethical competence is thus always de-  
 2823 fined in relation to a single ethical commu-  
 2824 nity, i.e. a single system of ethical premises.

2825 ‘Interethical competence’ is the ability to  
 2826 think and behave in a manner which differ-  
 2827 ing ethical communities regard as being ethi-  
 2828 cally neutral. (Robinson, 2014)

2829 ‘Anethicality’ is a state of mind which is free  
 2830 of fixed or ‘non-negotiable’ ethical premises  
 2831 (Robinson, 2014) and is thereby perceivably  
 2832 empathetic to each and every constellation  
 2833 of human ethical premises as also to non-hu-  
 2834 manness such as artificial intelligence. Be-  
 2835 ing a state of neutrality, anethicality neither  
 2836 accepts nor rejects ethical premises or stand-  
 2837 points and is not equivalent to ethical rela-  
 2838 tivism – matters which are explained in more  
 2839 detail in a previous article entitled ‘The  
 2840 Value of Neutrality’. (Robinson, 2007)  
 2841 Having this state of mind does not preclude  
 2842 a person from being ethically competent in  
 2843 relation to one or more ethical communities.  
 2844 Possessing ethical competence in relation to  
 2845 a certain ethical community could, however,  
 2846 preclude a person from possessing or devel-  
 2847 oping anethicality, i.e. if the ethical premises  
 2848 of that ethical community cannot include  
 2849 ethical neutrality.

2850 Depending on the ethical context and possibly  
 2851 assisted by technology-aided forms of intelli-  
 2852 gence (see Section 1.6), the development of an-  
 2853 ethicality could constitute a contribution to the

2854 ‘mental plasticity’ (Church, 2012) (p. 134) of  
2855 senior managers and other people, regardless of  
2856 factors such as their cultural conditioning or age,  
2857 and could add a new dimension of value both to  
2858 the expertise which a person has already  
2859 amassed from professional and worldly experi-  
2860 ence and to his/her ability to overcome inherent  
2861 circularity in the argumentation of ethical legiti-  
2862 macy. Irrespective of any personal benefit, all  
2863 stakeholders of an organisation could stand to  
2864 gain from a management team which avoids the  
2865 potential traps of deeply-engrained experience  
2866 and which, instead, turns its collective experi-  
2867 ence into a resource of agility, versatility and ac-  
2868 umen. By embracing the opportunity which the  
2869 development of digitalisation, AI and SI now of-  
2870 fers human-beings’ modes of thinking, the cur-  
2871 rently most influential stewards in business and  
2872 society at-large – particularly if these happen to  
2873 be ethically visionary individuals and groups –  
2874 could take this opportunity to contribute to met-  
2875 amorphosis at one of the very places which de-  
2876 termine life’s quality and/or meaning and the na-  
2877 ture of the human and non-human condition, al-  
2878 beit within a limited sphere or range of micro-  
2879 cosms.

2880 However, included in the core senior manage-  
2881 ment challenges is the task of overcoming the  
2882 fact that both managers and employees, almost  
2883 without exception, have been conditioned to  
2884 think and behave in mono-ethical terms. In fact,  
2885 much of the mono-ethical conditioning which  
2886 tends to commence in people’s early childhood  
2887 seems to get reinforced and intensified as they  
2888 progress through their further education and into  
2889 their professional lives. At work, their thoughts  
2890 and behaviour are expected to conform with a  
2891 single set of ethical norms, i.e. a code of ethics,  
2892 often underpinned by legislation. In an atomisti-  
2893 cally-orientated society, mono-ethicality brings  
2894 with it the dualism of ‘ethical behaviour’ and  
2895 ‘unethical behaviour’ and senior managers typi-  
2896 cally have no difficulty in expressing what type  
2897 of behaviour belongs to which category. In other  
2898 words, the cognitive ethical awareness of senior  
2899 managers is generally very high. When one ob-  
2900 serves their behaviour, however, it becomes  
2901 clear that there are often discrepancies between

2902 their cognitive ethical awareness and their ethi-  
2903 cal competence. From time to time, their behav-  
2904 iour can stray from the ethical norms of the com-  
2905 munity in which they operate. Whilst such dis-  
2906 crepancies can lead to tensions, to legal and ca-  
2907 reer consequences and to health problems, which  
2908 we have discussed elsewhere (Robinson, 2017),  
2909 what is relevant for the current discussion is the  
2910 fact that the phenomenon of the ‘ethical trans-  
2911 gression’, which is frowned upon by the commu-  
2912 nity and which can trigger a genuine bad con-  
2913 science within the individual, is an expression  
2914 not only of mono-ethicality within a veritably  
2915 multi-ethical context, but also very often of a  
2916 schism between ‘individuality’ and ‘the moral  
2917 individual’. To recall our discussion in Section  
2918 1, ‘individuality’ is defined here as the product  
2919 of an atomistic, secular and often atheistic way  
2920 of thinking in a community through which indi-  
2921 viduals legitimise themselves to exercise free-  
2922 dom of thought and behaviour and to distinguish  
2923 between the expression of natural passions and  
2924 cognitively reflected behaviour. Self-determina-  
2925 tion, self-empowerment, self-validation, self-es-  
2926 teem, self-responsibility, self-reproach and self-  
2927 alienation are concepts whose contemporary def-  
2928 initions closely match that of individuality. The  
2929 concept of the ‘moral individual’ contrasts with  
2930 ‘individuality’ in being void of internal atomisa-  
2931 tion – i.e. it entails a holistic form of integrity  
2932 based on one-ness in personal thought and be-  
2933 haviour – and void of external atomisation – i.e.  
2934 through living in one-ness with the community  
2935 and its moral and legal rules.

2936 Whilst the proliferation and impact of atomistic  
2937 thinking, which has been a sine qua non in sci-  
2938 ence, technology, engineering and the invention  
2939 of individuality, are increasing in the world of  
2940 business and society at-large along with the evo-  
2941 lution of digitalisation and whilst this mental  
2942 conditioning could be progressively un-invent-  
2943 ing the moral individual on a grand scale, we  
2944 find that the latter, i.e. the moral individual, still  
2945 plays a defining role in the credibility of senior  
2946 management, as also of politicians. Such pub-  
2947 licly-exposed people are expected to be role-  
2948 models in both a mono-ethical sense and as a  
2949 moral individual. Consequently, even though  
2950 their individuality may be very high, they realise

2951 that they must expect a high moral-individual  
2952 level of themselves, something which may be  
2953 difficult reconcile with their past behaviour and  
2954 their ethical footprints. In other words, the fur-  
2955 ther major challenge for senior managers in such  
2956 a predicament would lie in the fact that until their  
2957 own mono-ethically conditioned self-image and  
2958 the mono-ethically conditioned external expect-  
2959 ation of them are changed, they would lack the  
2960 type of credibility which would be needed to ef-  
2961 fect ethical transformation. Such change could  
2962 be effected through:

- 2963 1. undergoing the inner ethical transfor-  
2964 mation from mono-ethical competence  
2965 to inter-ethical competence and to an-  
2966 ethicality
- 2967 and
- 2968 2. creating understanding for this inner  
2969 transformation among their peers, em-  
2970 ployees, clients, business partners and,  
2971 not least, their loved ones.

### 2.3 The Challenge of Ethical Transformation: Corporate Options and Corporate Questions

2972 One way of effecting ethical transformation, bor-  
2973 rowing a term from Venkatraman, whose work  
2974 we discussed earlier (Venkatraman, 2017a),  
2975 would be to commence at the ‘edge’ of a corpo-  
2976 rate structure and its activity, i.e. to build a cor-  
2977 porate spin-off which could later be a role-model  
2978 for – if not induce a re-invention of – the original  
2979 organisation. Alternatively, one could transform  
2980 the whole organisation which, depending on its  
2981 size and history, could prove to be highly risky.

2982 A new corporate-edge entity could characterise  
2983 itself through one of the following ‘ethical trans-  
2984 formation options’:

- 2985 1. a carefully selected set of ethical prem-  
2986 ises which would differ, probably quite  
2987 strongly, from those of the existing or-  
2988 ganisation and, depending on the nature  
2989 of those premises, form the basis for a  
2990 new organisational/business model with

2991 its own code of ethics, vision, culture  
2992 and strategy,

2993 or with something even more ambitious, e.g.

- 2994 2. multi-ethicality, including non-human-  
2995 ness, and thus be an exact replica of hu-  
2996 manity as we know it, and anticipating  
2997 the emerging, transformative and ever-  
2998 diversifying terrestrial condition.

2999 In choosing between such ethical transformation  
3000 options for the whole organisation or for a cor-  
3001 porate-edge entity, decisions would have to be  
3002 made, consciously or subconsciously, concern-  
3003 ing a variety of ethical premises, the groundwork  
3004 for which we laid out in the previous section and  
3005 also in the list of five corporate ethicality ques-  
3006 tions above. Linking back to those discussions,  
3007 ethical transformation questions might include  
3008 the following:

- 3009 - To what extent does the legitimacy of  
3010 choosing and adopting a new set of eth-  
3011 ical premises need to be addressed, by  
3012 whom, how explicitly, what would be  
3013 the role of reason, passion or intuition,  
3014 and why?
- 3015 - How can it be established that a chosen  
3016 set of ethical premises is truly transfor-  
3017 mational, or not? How anthropocentric  
3018 is the chosen set, and why?
- 3019 - To what extent does any argumentation  
3020 on the matter of legitimacy need to be  
3021 evaluated in terms of potential inherent  
3022 contradiction or circularity and why? To  
3023 what extent is the why-question (above  
3024 and below) appropriate?
- 3025 - What criteria should be used to deter-  
3026 mine who should ask, and who should  
3027 answer, the question as to who should be  
3028 involved in any decisions on choosing  
3029 and adopting a new set of ethical prem-  
3030 ises and why?
- 3031 - How should any decision-making pro-  
3032 cesses take place and why?
- 3033 - To what extent should human, artificial  
3034 and superintelligence be involved in any  
3035 data-gathering or decision-making and  
3036 why?

3037 - To what extent should the responsibility  
3038 for the consequences of any decisions  
3039 for oneself and for any third parties be  
3040 considered, how and why?

3041 The answers which result from such questions  
3042 are likely to have a major impact on the relation-  
3043 ship between management and employees and  
3044 also between the organisation and its human and  
3045 non-human environment – relationships which  
3046 are already undergoing fundamental change in  
3047 many countries and cultures. Arguably, it would  
3048 be wise for senior management to address these  
3049 questions proactively rather than, consciously or  
3050 subconsciously, finding reasons for procrastina-  
3051 tion.

3052 Ethical transformation will also necessarily  
3053 bring into question the role which several pillars  
3054 of managerial understanding and teaching have  
3055 played until the present day. Such pillars include

- 3056 - trust
- 3057 - reliability
- 3058 - moral conscience
- 3059 - authenticity.

3060  
3061 Hitherto, these and other fundamental precondi-  
3062 tions for productive relationships inside organi-  
3063 sations and in society at-large have been inextric-  
3064 ably linked to the premise of mono-ethicality.  
3065 As such, they fulfil a socially conditioned need  
3066 for cohesion through the expectation of predict-  
3067 ability and thereby constitute an institutionalised  
3068 norm for relationships of most types, including  
3069 those between management and employees.

3070 If the expectations for ethical conformity and  
3071 predictability are not fulfilled either by managers  
3072 or by employees – whether singly or collectively  
3073 – then relationships can very quickly degenerate  
3074 and sooner or later trigger serious organisational  
3075 and social malfunction as well as individual psy-  
3076 chological and psychosomatic health disorders.  
3077 Individuals or organisations who do not fulfil  
3078 these fundamental expectations can become irre-  
3079 versibly ostracised – justified on the very famil-  
3080 iar grounds of a lack of ‘trust’, ‘reliability’,  
3081 ‘moral conscience’, ‘authenticity’ etc.

3082 It follows that senior managers who are contem-  
3083 plating ethical transformation – as a prerequisite  
3084 for or as a consequence not only of develop-  
3085 ments in digitalisation, AI and SI but also of the  
3086 fact that their inner and outer world is already  
3087 multi-ethical – are faced with the challenge that,  
3088 whilst firmly-rooted elements of mono-ethicality  
3089 such as trust and reliability impede even the tini-  
3090 est amount of transformation and multi-ethical-  
3091 ity, they are compelled to find and/or develop ad-  
3092 equate amounts of inter-ethical competence and  
3093 anethicality: the latter involves an agile, versatile  
3094 state of mind with a high level of empathy which  
3095 seeks for itself neither certainty nor uncertainty,  
3096 neither predictability nor unpredictability, nei-  
3097 ther the fulfilment or non-fulfilment of expecta-  
3098 tions, neither trust nor mistrust.

3099 Whether declared explicitly or not, deciding for  
3100 any one of the two ethical transformation options  
3101 given above will almost certainly also run into  
3102 legitimacy challenges from and/or with most  
3103 mono-ethical entities, whether the latter are  
3104 within the organisation or outside it: there is a  
3105 high likelihood that the circular legitimacy argu-  
3106 mentation which characterises any mono-ethical  
3107 entity will preclude finding a sustainable consen-  
3108 sus. However, the chances of attaining such a  
3109 consensus could be significantly higher if there  
3110 were sufficient inter-ethical competence and an-  
3111 ethicality present among those involved, af-  
3112 fected or both. If adequate levels were indeed  
3113 present, then finding solutions concerning the  
3114 role of reason, passion or intuition as also decid-  
3115 ing on who would be involved and how to handle  
3116 accountability would also not be particularly dif-  
3117 ficult.

## **2.4 The Challenge of Ethical Foresight and Accountability: Transformational Contingency**

3118 Examples from the advancement of artificial and  
3119 super-intelligence offer opportunities to observe  
3120 and reflect on the role of ethical foresight and ac-  
3121 countability and to deepen our understanding of  
3122 current dynamics at the interface between engi-  
3123 neering and business ethics, on the one hand, and

3124 societal and individual ethics, on the other. Tak-  
3125 ing an example from the field of soft robotics, we  
3126 will now examine the contingency of digital and  
3127 ethical transformation.

3128 Let us imagine that we have consciously  
3129 founded, and are operative in, an organisation or  
3130 corporate ethical-edge entity which we have le-  
3131 gitimised ourselves to base upon the Nie-  
3132 tzschean-like cluster of ethical premises dis-  
3133 cussed in Section 1. Through adopting this clus-  
3134 ter, we have further legitimised ourselves to  
3135 build a humanoid robot with an agent-learning  
3136 programme. The latter has enabled our robot to  
3137 approximate human behaviour.

3138 In the speech repertoire which it has built  
3139 through learning from human speech behaviour,  
3140 our humanoid can now say

3141 *'Sorry, please forgive me!'*

3142 and

3143 *'I love your eyes when you get angry!'*

3144 Let us further imagine that we have built our hu-  
3145 manoid with a face which can redden and with  
3146 eyelids which can vary in millimetres between  
3147 being wide open and tightly closed; we have pro-  
3148 grammed it in such a way that the facial redden-  
3149 ing and a noticeable tightening of the eyelids can  
3150 occur when the humanoid perceives certain hu-  
3151 man behaviour, e.g. when a human says in an en-  
3152 ergised tone of voice and with direct eye-contact

3153 *'What you just did is not what we*  
3154 *agreed!'* (or some semantically equiva-  
3155 lent statement).

3156 The result of programming the humanoid in this  
3157 way is that it can replicate the facial expression  
3158 of a human-being with a guilty conscience, i.e.  
3159 with the reddened face and tightened eyelids.  
3160 Simultaneously, it is able to express, in verbal  
3161 terms, an acknowledgement of wrong-doing and  
3162 guilt through either an explicit apology or a de-  
3163 flecting form of flattery.

3164 If we assume that we have not tried to, or have  
3165 not succeeded in, implanting a human type of

3166 conscience into the humanoid, the following re-  
3167 flection can exclude any implications of what we  
3168 have created for the 'being' of the humanoid.  
3169 Accordingly, we can restrict our reflection to the  
3170 implications for certain sectors of current local  
3171 and global society from a human point of view –  
3172 noting that this example serves also as a symbol  
3173 for many other developments and outcomes of  
3174 digitalisation. Significantly, these implications  
3175 may lead us to regret not having anticipated them  
3176 before building the humanoid in the first place  
3177 and before even legitimising ourselves to adopt  
3178 the set of ethical premises which underlies our  
3179 corporate entity. Alternatively, we might have  
3180 no regrets at all, for reasons which may be  
3181 equally significant for understanding ethical  
3182 transformation.

3183 Starting with the facial expression, humans who  
3184 interact with our humanoid may or may not be  
3185 mentally and emotionally affected by the red-  
3186 dening and the tightened eyelids. Depending on  
3187 their psychological constitution and condition at  
3188 the time, a high proportion of humans will not be  
3189 able to avoid entering into some form of relation-  
3190 ship with the humanoid, even though they will  
3191 be cognisant of the fact that the humanoid's  
3192 change of facial expression does not stem from a  
3193 human conscience. Even for us when we were  
3194 doing the construction and programming of the  
3195 humanoid, there is the possibility that we will  
3196 have been motivated by the thought of being able  
3197 to trigger behavioural reactions in an Other, not  
3198 least ones such as guilt, and getting the Other to  
3199 do exactly what we want – as is a possible key  
3200 motivation behind the creation and application  
3201 of sex robots – perhaps as a vent for feelings of  
3202 personal insufficiency and/or a need to exercise  
3203 some form of personal power or self-determina-  
3204 tion. The life-like element of what we have con-  
3205 structed corresponds to one of the basic features  
3206 of the modernist human condition: through the  
3207 activation of our faculty of anthropomorphism  
3208 (i.e. the attribution of humanness into non-hu-  
3209 manness), we can generate a self-asserting expe-  
3210 rience of immediate (i.e. temporal) personal cer-  
3211 tainty not only through perceiving the demarca-  
3212 tion between animacy, pseudo-animacy and in-  
3213 animacy but also through being and, of course,  
3214 playing the Creator, i.e. being, and, of course,

3215 playing the Creator of the Creator – cf. the re-  
3216 flection in Section 2.2 on movements such as  
3217 Anthony Levandowski’s creation of the godhead  
3218 of AI. (Harris, 2017)

3219 In terms of the ethical premises which are at play  
3220 here, we can readily recognise several elements  
3221 of the cluster which we discussed above in rela-  
3222 tion to the works of Dante and Nietzsche and  
3223 upon which we have built our organisation or  
3224 corporate ethical-edge entity, i.e.

- 3225 - will to influence,
- 3226 - *amor fati* and eternal autonomy,
- 3227 - human aestheticism,
- 3228 - inherent nihilism within the ‘as-if’ affir-  
3229 mation.

3230 From the perspective of the human who is inter-  
3231 acting with our humanoid, he/she enters into an  
3232 ‘as-if’-relationship, where, in exercising the will  
3233 to influence ‘Otherness’, he/she can fulfil natural  
3234 passions and strengthen personal autonomy in a  
3235 self-legitimised, affirmative way over a pseudo-  
3236 human. In striving to attain personal certainty  
3237 through exerting as-if control over the Other, the  
3238 human agent can find personal confirmation  
3239 through our humanoid’s reaction. The state of  
3240 mind which emerges over time in the human can  
3241 quite easily develop from being one of attraction  
3242 and fascination into being one of self-projecting  
3243 attribution, addiction and thereby of self-addic-  
3244 tion. In other words, the interaction with our hu-  
3245 manoid can serve as a catalyst or boost for a nar-  
3246 cissistic form of aestheticism – or possibly an  
3247 aesthetic form of narcissism.

3248 Whilst such anthropomorphism has, of course,  
3249 not been at all uncommon in society, e.g. be-  
3250 tween humans and machines, until the present  
3251 day, interactions between humans and highly so-  
3252 phisticated humanoid robots – including the one  
3253 we have legitimised ourselves to build in our ex-  
3254 ample – contain a particular element which may  
3255 deserve ethical and juridical attention, namely  
3256 something which we will henceforth term the  
3257 ‘as-if<sup>0</sup> dimension’ (which will be explained be-  
3258 low) and is emerging with the digital, inanimate  
3259 form of autonomous intelligence which is cur-  
3260 rently being developed in numerous countries.

3261 Returning to the example and as already men-  
3262 tioned, the human interactor is cognisant of the  
3263 fact that our humanoid does not have a guilty  
3264 conscience and that its behaviour, just like that  
3265 of an actor in a film or on a theatre-stage, is at  
3266 best a simulation of human behaviour. We will  
3267 term this mode of cognisance the ‘as-if<sup>2</sup> dimen-  
3268 sion’, which captures the ability of adults to ab-  
3269 stract in a cognitive way from concrete experi-  
3270 ence. When in full as-if<sup>2</sup> mode, the human inter-  
3271 acts with our humanoid in a mental state of max-  
3272 imally conscious awareness. It is the faculty for  
3273 this as-if<sup>2</sup> mode which allows humans to interact  
3274 with others on a meta-level and thereby in a man-  
3275 ner which generates negligible amounts of posi-  
3276 tive or negative deep-psychological impact from  
3277 their interactions. Strongly atomistic cultures are  
3278 predisposed to as-if<sup>2</sup> interactions as also are ra-  
3279 tio-based modes of thinking which commonly  
3280 occur in exchanges between people in profes-  
3281 sions such as those of lawyers and engineers.

3282 In parallel with the as-if<sup>2</sup> mode of interaction, it  
3283 is possible, of course, that, at a less conscious,  
3284 non-abstracted level, emotions will be triggered  
3285 in the human as he/she interacts with the behav-  
3286 iour of our humanoid. This can occur when the  
3287 human’s nonconscious faculties begin to interact  
3288 anthropomorphically with the humanoid as-if its  
3289 behaviour were animate and when the human is  
3290 unable to control any emerging emotions, e.g.  
3291 through cognitive reasoning. Such modes of in-  
3292 teraction involve what we will term the ‘as-if<sup>1</sup>  
3293 dimension’ – a dimension which can be observed  
3294 in the behaviour of people of all ages including,  
3295 most clearly of all, in young children who have  
3296 not yet developed the faculty which makes  
3297 purely rational abstract as-if<sup>2</sup> interactions possi-  
3298 ble. A young child can play with a toy in what  
3299 can seem to adults to be a ‘pretend’ type of fash-  
3300 ion, that is until the child becomes implacably  
3301 perturbed when the toy, with which it has created  
3302 an affectional, symbiotic bond, gets lost or taken  
3303 away. For an adult who is in a highly cognisant  
3304 as-if<sup>2</sup> mode and who thereby abstracts and is  
3305 consciously aware that it is ‘only a toy’ which  
3306 the child has lost, communicating with the per-  
3307 turbed child who is at the as-if<sup>1</sup> level can become  
3308 tremendously challenging and vice versa.

3309 The same as-if<sup>1</sup> phenomenon manifests itself in  
 3310 the behaviour of young children when they use  
 3311 nouns and pronouns in a symbiotic manner with  
 3312 people or things, i.e. when the words which they  
 3313 articulate are virtually inseparable from the ob-  
 3314 ject. It is only during later stages of cognitive,  
 3315 conceptual and linguistic development that pro-  
 3316 nouns are used anaphorically in referring to an  
 3317 explicit syntactic antecedent and/or what is com-  
 3318 monly termed a ‘referent’, as investigated in  
 3319 ‘The Use of Anaphora by Children’ (Robinson,  
 3320 1983).

3321 The significance of the as-if<sup>1</sup> dimension is to be  
 3322 recognised in the broadly documented observa-  
 3323 tion that children are likely to experience psy-  
 3324 chological consequences for the rest of their  
 3325 lives if family relationships are ruptured at an  
 3326 early age, as noted in ‘The Making and Breaking  
 3327 of Affectional Bonds’ by John Bowlby (Bowlby,  
 3328 1979, 2005) (p. 141). Affectional bond-rela-  
 3329 tionships are represented in the mind/being of the  
 3330 young child as ‘non-negotiable’ premises.

3331 Roger Hilton, who pioneered abstract art in Brit-  
 3332 ain in the post-World War II period, is cited by  
 3333 Adrian Lewis in his book ‘The Last Days of Hil-  
 3334 ton’ as describing the difference between what  
 3335 we have termed here the ‘as-if<sup>1</sup> dimension’ and  
 3336 the ‘as-if<sup>2</sup> dimension’ in relation to art as fol-  
 3337 lows:

*One has to face the eternal problem  
 about children’s art. It is often charming  
 and you can borrow from it. The differ-  
 ence is, I think, that children are essen-  
 tially realists, whereas a mature painter  
 is not. (Lewis, 1996) (p.83)*

3344 Lewis elaborates:

*Hilton is cleverly drawing attention  
 away from imagery to the status of the  
 image. Piaget refers to the first four  
 years of a child’s development as char-  
 acterised by ‘logical ontological ego-  
 centricity’ in the sense that the child  
 constructs its own reality. ... A mature  
 artist is aware of making an image or il-*

3353 *lusion which does not command or con-*  
 3354 *stitute reality ... and is aware of making*  
 3355 *a dream-work. (Lewis, 1996) (p.84)*

3356 The use of the term ‘dream-work’, which cap-  
 3357 tures many elements of our discussion, allows us  
 3358 to recognise that, since the human bonds and  
 3359 life-visions of adults can vary in affectional in-  
 3360 tensity and significance, as can be seen in times  
 3361 of extreme circumstance (e.g. depression follow-  
 3362 ing the breakdown of a dream relationship, ec-  
 3363 stasy following the fulfilment of a truly visionary  
 3364 vision) there are often as-if<sup>1</sup> elements at play  
 3365 which have the emotional power to override the  
 3366 as-if<sup>2</sup> faculty.

3367 Significantly for our reflection on AI in general,  
 3368 including the possibility of building certain ca-  
 3369 pacities into humanoids, we note that it is the as-  
 3370 if<sup>1</sup> dimension which makes the human more  
 3371 deeply vulnerable to deception and more men-  
 3372 tally and emotionally susceptible to the conse-  
 3373 quences of disillusionment than the as-if<sup>2</sup> dimen-  
 3374 sion, particularly at the level of deep-ethics as  
 3375 discussed in a previous paper:

*As a central part of the human survival  
 system, the deep-ethical system acts as a  
 counterforce to what is sometimes  
 termed the ‘terror’ of inevitable death  
 and, as such, is inextricably linked to  
 people’s deepest feelings, yearnings,  
 sympathies, antipathies and emotional  
 reactions. Lying largely beyond the  
 reach of their cognitive faculties, it is at  
 the level of deep-ethics that human or-  
 ganisms autonomously determine when,  
 where and with whom they feel really  
 comfortable, or really uncomfortable -  
 really relaxed, or really stressed.  
 (Robinson, 2016b)*

3391 The deep-ethical systems of human-beings tend  
 3392 to develop in the first four to five years of their  
 3393 lives and, once intrinsically bonded, form the  
 3394 non-negotiable core of their identity. If people’s  
 3395 deep-ethics are violated to the extent that they  
 3396 see no way of upholding their identity, then their  
 3397 ethical health – i.e. their deep-psychological  
 3398 health – can deteriorate to a level where serious



3399 depression and/or violence in its various forms  
 3400 can set in. (Robinson, 2016b)

3401 Based on these reflections and depending on  
 3402 one's ethical standpoint, the legitimacy of con-  
 3403 sciously or unconsciously developing AI-arte-  
 3404 facts which catalyse deep-level bonding of an af-  
 3405 fectional nature could warrant questioning. If af-  
 3406 fectional bonds, predominantly at the as-if<sup>1</sup>  
 3407 level, were to emerge in human-beings through  
 3408 their 'interactions' with autonomous intelligent,  
 3409 inanimate AI-artefacts such as our humanoid,  
 3410 these could lead to a stable, one-sided source of  
 3411 deep pleasure, fulfilment and reliability or possi-  
 3412 bly to one which mutates into serious psycholog-  
 3413 ical harm for the human. Initially at least, the hu-  
 3414 man may lead him-/herself to **feel** in control of  
 3415 the 'interaction'; perhaps through the activation  
 3416 of his/her anthropomorphism, the human might  
 3417 put his/her **trust** into the (functioning of the) ar-  
 3418 tefact. From the ethical premise of self-determi-  
 3419 nation and without deeper reflection, it would be  
 3420 the human who would be accountable for any  
 3421 and all consequences of such 'interaction' and  
 3422 not the programmers or their senior manage-  
 3423 ment.

3424 Given the unlikelihood of AI-artefacts ever be-  
 3425 ing enabled to operate in an as-if<sup>1</sup> mode, we will  
 3426 assume also for our humanoid

- 3427 - that it is not able to reciprocate the **feel-**  
 3428 **ings** and **trust** of the humans with whom  
 3429 it 'interacts',
- 3430 - that it has neither the faculty nor the  
 3431 need for emotionally-based certainty,  
 3432 for affectional bonds or for deep-ethics  
 3433 and
- 3434 - that it does not function with as-if<sup>1</sup>s  
 3435 since, unlike humans, its 'condition' is  
 3436 not founded on the mitigation of deep-  
 3437 seated feelings and premises such as  
 3438 emotion-linked uncertainty, loneliness  
 3439 or existential terror.

3440 However, given the autonomous agent-learning  
 3441 character of the humanoid, it is able to 'partici-  
 3442 pate' in a form of asymmetric 'interaction' in-  
 3443 volving potential anthropomorphism, of which  
 3444 its programmers could arguably be aware, and

3445 algorithmically calculated and (for itself) non-af-  
 3446 fectional, deep-ethics-free behavioural choices.  
 3447 For example, the humanoid will calculate  
 3448 whether to say

3449 *'Sorry, please forgive me!'*

3450 or

3451 *'I love your eyes when you get angry!'*

3452 This calculated decision will be reached on the  
 3453 basis of an as-if<sup>0</sup> premise. In other words, the  
 3454 phrase which it decides for will be articulated

- 3455 - not in an as-if<sup>2</sup> mode of reciprocal inter-  
 3456 action,
- 3457 - nor in an as-if<sup>1</sup> mode of reciprocal inter-  
 3458 action,
- 3459 - nor in the mode of an interaction be-  
 3460 tween a human and an inanimate object  
 3461 such as a toy,
- 3462 - but either in an asymmetric as-if<sup>0</sup>:as-if<sup>1</sup>  
 3463 mode or an asymmetric as-if<sup>0</sup>:as-if<sup>2</sup>  
 3464 mode.

3465 Whilst both of the latter are non-reciprocal  
 3466 modes of 'interaction', it is the as-if<sup>0</sup>:as-if<sup>1</sup> mode  
 3467 which arguably poses the more serious account-  
 3468 ability questions for senior management, since  
 3469 the as-if<sup>0</sup> faculty must have (for lack of alterna-  
 3470 tives) consciously or unconsciously been pro-  
 3471 grammed into the humanoid without adequate  
 3472 foresight in relation to the factor of anthropo-  
 3473 morphism and without consideration of the con-  
 3474 tingent legitimacy of choosing the Nietzschean-  
 3475 like cluster of ethical premises.

### Concluding reflections

3476 That which in the last example might appear,  
 3477 from an AI-development and an engineering or  
 3478 commercial ethics perspective, to be a fascinat-  
 3479 ing, harmless artefact, could, in the psychologi-  
 3480 cal reality of the human-being, become the  
 3481 equivalent of a human psychopath, i.e. a manip-  
 3482 ulator and a simulator of ethics with no genuine  
 3483 feelings of shame, disgust or guilt. Almost para-  
 3484 doxically, the life-affirming gift of as-if<sup>1</sup> lays

3485 bare its nihilistic roots and allows the human  
3486 agent to become his/her own victim.

3487 Argumentation from the perspective of the Nie-  
3488 tzschean-like cluster that the self-victimisation  
3489 consequence is self-inflicted and that neither our  
3490 ethical-edge entity nor we ourselves, as its  
3491 founders, managers or engineers, need bear any  
3492 responsibility for any negative consequences nor  
3493 question our legitimacy is arguably untenable, as  
3494 we have seen.

3495 Reflected from a different ethical perspective,  
3496 others might, in analogy to our reference to Op-  
3497 penheimer in Section 2.1, draw the conclusion:

3498 *Unintentionally, you are become Sui-*  
3499 *cide, the annihilator of trust and moral*  
3500 *conscience.*

3501 Viewed anethically, the above example enables  
3502 one to see that the dynamics and contingency of  
3503 ethically diverse BEING and DOING

3504 1. could be left to their own devices with  
3505 whatever consequences may transpire

3506 and/or

3507 2. could/should be consciously anticipated,  
3508 proactively prevented and, where neces-  
3509 sary, retrospectively admonished where  
3510 accountability is due, e.g. with the senior  
3511 management of the corporate-edge en-  
3512 tity in our example

3513 and/or

3514 3. require a level of inter-ethical compe-  
3515 tence which contemporary society argu-  
3516 ably does not currently possess in order  
3517 to radically address and resolve the chal-  
3518 lenges of living in a factually multi-eth-  
3519 ical world.

3520 The particular example, and also the discussion  
3521 throughout the paper, permit the conclusion that  
3522 forms of artificial intelligence

- 3523 - which have not been (or cannot ever be)  
3524 equipped with an as-if<sup>1</sup> faculty,
- 3525 - which do not function on the basis of  
3526 mono-ethical understandings of trust,  
3527 moral conscience and authenticity,
- 3528 - which do not possess the faculty of cre-  
3529 ating pseudo-certainty,
- 3530 - which do not operate on the notions of  
3531 legitimacy or control,
- 3532 - whose ‘being’ and ‘doing’ is not  
3533 founded on existential terror and  
3534 - which, for example, have no *amor fati*  
3535 passions and aesthetics through which to  
3536 attain temporal positive self-affirmation

3537 represent a condition which is free from many  
3538 elements of human ethics which currently lie at  
3539 the source of both mild and also very severe in-  
3540 trapersonal and inter-human dissonance and dys-  
3541 function.

3542 The example also offers the opportunity – possi-  
3543 bly an Ethical Singularity Comedy – to over-  
3544 come what Ciprio Valcan terms ‘*our gnosiologi-*  
3545 *cal apparatus*’ which ‘*constantly works on the*  
3546 *skilful deformation of (these aspects of) exist-*  
3547 *ence* (Valcan, 2008) and for humanity to learn  
3548 how to rewrite the ethics of BEING.

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24<sup>th</sup> December 2017

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