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To: Dr. John Jordan, DPS Program Director & Professor of Practice
Re: Brian Hogan Writing Statement for DPS Information Management

Frey and Osborne assessed factors and codes across 903 detailed American occupations resulting in uniform factors and codes for 702 occupations. Using decision parameters detailing either complex perception and manipulation, creative intelligence, and social intelligence tasks the team hand-labeled 70 occupations with nine variables to assess the entire job portfolio's probability of computerization. The nine variables ranged from hand dexterity, cramped work space, fine arts, originality, to persuasion, negotiation, and caring for others to name a few. These categories helped support the broad analysis of computerization of tasks by either routine or nonroutine human interface inputs. The 70 occupations became the gold standard or training set of a Gaussian process classifiers-based machine learning model applying weights across data fold segmentations. Greater than 90% accuracy was achieved across three classifier models supporting model validity. The model's classification schema resulted in low, medium, and high industry computerization outcomes indicating a massive reduction in medium rated occupations, or those where computer substitution was dominant.

The inhumanity of the document was overwhelming. The sheer destruction of human capital is forecasted and worker skills abstracted across human capital categories, such as dexterity, negotiation, persuasion, and helping others, was as disenchanting as it was realistic. Discussion of the onslaught of mechanization is nothing new but using AI to engineer and prove job destruction with a massive hollowing out middle wage occupations was both thorough and convincing. In the eight years since publication, it is difficult to argue against further rise of big data and ability of information technology systems to continue codifying physical reality and anything inside brick and mortar. InfoTech tools of machine learning, data mining, machine vision, and computation statistics were thoroughly detailed and how novel advancements in pattern making have particularly accelerated routine task automation. Wherever feasible, the use robotics to replicate human movement seemed to accurately predict human capital replacement. This is especially dire with the replication of human body movement achieved and broadcasted in 2021 with Boston Dynamics suite of dancing robots from humanoid Atlas to rovers. The article does nothing inhumane per se other than rationally forecast how high-school and colleges should start re-vamping curriculum now as a wide variety of current occupations will be eliminated through infotech creative destruction. The only other critique is creation of only 9 factors to perform their occupation prediction on. These is a rather low number and at the worst case the pair should have labeled more training data if it could only manage coding 70 positions.

Frey and Osborne insights into computerization of non-routine cognitive tasks was the bread and butter of my modeling and simulation employer ProModel corporation. My job for 15 years was validation of machine and technology improvements to replace human capital. What I found

maddening is I always wanted to be doing what Frey and Osborne were doing but I had a family to feed. I used to read about how Alan Greenspan built his methods for economic models through industry data aggregation and I knew similar could be done for labor but family obligation engines turned. I absolutely agree with the outcome that human heuristics would take longer to automate as at BAE industrial even though they had the most complicated circuit boards fabricated for the F-35 Lightning, it still required a plant 65 employees to perform final fabrication. Work that would not be going away for a very long time.

I believe scholarship in the theory, development, and integration of healthy AI structures enabling positive social fabric would inform my professional position by granting me access to conferences and perhaps becoming a colleague in groups such as the [Learning Salon](#) who explore bridges and contentions in biology and artificial learning. Why is this important? It has industry leading pundits such as Ida Momennejad from Microsoft's elite research team and [John Krakauer](#) an academic from Johns Hopkins who is essentially a leading indicator of healthy AI structures. I believe scholarship would also inform my professional position by empowering me as a academic practitioner to deliver scholastic material educating how conscious experiencing agents, human and perhaps robotic, are continuously negotiating intelligence and consciousness expansion. I am terribly worried about the implementation of insidious info tech agents capable of inflicting diseased information, or at worst, authoring autopoietic systems regulating intelligence-controlled agents. Facebook and Twitter agents already control information access, dissemination, and homogenization through business rules derived from machine learning categorization, such as 'offensive' content. Quite regularly, Twitter labeled offensive content may not be based in foul language or slander. The information technology world has human beings in the center of Michael Foucault's mental prison argument where the goals of power and knowledge are inseparable and whoever is in control may also be in charge of an entire class of human consciousness. Scholarship would challenge me to tease out, categorize, and readily speak on all vectors supporting and contracting from healthy AI.

Another area I am interested in applying rigorous analysis is how information technology influences perception and experience phenomena. Given broadband speeds and smartphone power, the rates of qualia ingestion are exponential and generate and addicting amount neural and physical excitement. But how *real* is the experience? What aspects of this experience can be measured to help build an understanding of what new devices MUST HAVE to replace an iphone's incessant nature? Let us posit for device XYZ we develop a credible measure, what ethical considerations must not be compromised if corporate viability is at stake? Has the world clearly established the necessity of this? Jean Baudrillard hypothesized progression to continuous object dematerialization into signs and simulation devoid of the natural. There are mental consequences to this theory and this past week local Boston news covered growing high-school and college nature therapy program at Maine's [Summit Achievement](#) treatment center. The center was founded to address social media and internet device burnout leading to youth stress and anxiety conditions. Some form of policy around the harmful effects of thoughtless information technology paradigms must be considered as infotech device manipulation has contributed to a marked rise in obesity prevalence from 30.5% in 2000 to 42.4% in 2018. Scholarship would lead to quality evidence-based practice research to help organizations such as Summit Achievement ensure ongoing success through further trend analysis.

I believe a doctorate in the information sciences intellectual domain would affect my professional trajectory as deep theory work would also enable me to engage with practical mechanisms either in business, policy, or academia. Such work is needed to inform healthy social contracts built between humans, information technology agents, and health services necessary to minimize adverse events spanning human mental, physical, and intelligence health. Corporations are interested in statistical measures of fairness but there is much work to be done forging deeper connections amongst legal, philosophical and socio-technical realms. I believe I could be of deep service to this work and academia as a practitioner of this intellectual domain.

Best Regards,

Brian Hogan

Brian Hogan, MS

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