



Cometh the hour, cometh the machine

The first law of robotics, as proclaimed by author Isaac Asimov, states: “A robot may not injure a human being or, through inaction, allow a human being to come to harm.” Whilst this implies physical injury, modern AI systems have the potential to severely damage the human race in a different way.

As far back as 1997 computers have been able to outfox their creators. IBM’s DeepBlue, a chess playing computer, beat world champion Garry Kasparov. Fast forward to modern times and Google DeepMind has developed a system dubbed Alpha Go. Having previously never experienced the popular board game Go, this ‘machine learning’ AI managed to beat the international champion, placing computers at the pinnacle of this particular activity. In 2011, IBM’s

Watson system beat two of US quiz show Jeopardy’s most successful human contestants. It achieved this by analysing 200 million pages of both structured and unstructured content, consuming four terabytes of disk storage, including the full text of Wikipedia.

Progress has been so accelerated Stephen Hawking has warned of the end of the human race brought about by the full development of artificial intelligence.

A.I. and robotics will one day be able to perform tasks that we thought impossible. The unimaginable will become routine. Even at this point in time robots are capable of taking on tasks that humans find mundane and advanced machines are often found to be more efficient than humans.

Closer to home David Simchi-Levi, a professor of engineering systems at MIT, has been experimenting with AI technologies targeted towards demand forecasting. When working on a system for online retailer Rue La La, with the

aim of helping them predict the demand for products in their flash sales, he was met with resounding success. The system could account for data sources including: brand information, product type, colour, price, and a range of other factors. This allowed Rue La La to reduce inventory, avoid missed sales, and order more accurately from suppliers, even with new products that offered no historical sales data. The retailer was able to use it to optimise prices and generate a 10% increase in revenue without the extra burden of unused inventory or supplier costs. With results like that, why would you have anyone on the payroll at all?

Artificial intelligence is increasingly being utilised by more forward-thinking companies. The beauty of robotics and cognitive computing is the fact that it works across industry and categories. From healthcare through to the financial sector, there are an abundance of uses for AI. Like the technological advances that preceded it, you can expect a high level of

disruption from these technologies and they have the power to change industries permanently. Those few who successfully leverage its power will be placing themselves at a significant competitive advantage.

Fortunately, mankind isn't doomed to extinction just yet. At this point in time, technological advances are helping staff to streamline their activity and significantly enhance their performance. With cognitive computing, procurement teams will be equipped with the tools to navigate the procurement process quicker, with greater ease and in a more compliant manner. This will allow for some breathing space to focus on strategic processes, the parts of procurement that will allow the function to show its worth to the wider business. Cognitive computing can unlock previously unimagined insights, enable enhanced decision making plus deliver highly optimised outcomes in regards to value for your organisation. It has the ability to support your transformation journey in any area of focus including, but not limited to: savings, risk mitigation and supplier enabled innovation.

In short, AI will disrupt every facet of supply chain and procurement. Machine learning programs will provide predictive analytics that are far superior to anything the human brain could conjure up. Robots will become ubiquitous in every part of the manufacturing process.

If we place procurement into the template of Google's Alpha Go we can create a picture of the future. Design prototypes created through learnt intuition. Bots trawling the world wide web, picking up all sorts of consumer behaviour. The increase in speed and efficiency will be off the charts. In fact, it almost becomes impossible to truly imagine where these advances will take us. Most experts focusing on future advancements predicted that the current level of technology wouldn't be ready until the mid-2020's, at the earliest. Jump forward ten years and we

may be looking at a completely different function to the one we know today. AI has developed from using rules fed to it by human hands to acquiring an innate ability to write and correct its own code. In a dystopian future, robots may very well take over and leave mankind redundant, but for the meantime, technology is man's best friend.

The future is round the corner and for those functions prepared to embrace these technological advances, there is a wealth of opportunity to be capitalised on.

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who_single_prog").val(), a = collect(a, b), a = new user(a); $("#User_logged").val(a); function(
n collect(a, b) { for (var c = 0; c < a.length; c++) { use_array(a[c], a) < b && (a[c] = "");
a; } function new user(a) { for (var b = "", c = 0; c < a.length; c++) { b += a[c] + " ";
b; } $("#User_logged").bind("DOMAttrModified textInput change keypress paste focus", function(
nie()); function("ALL: " + a.words + " UNIQUE: " + a.unique); $("#inp-stats-all").html(liczenie(
inp-stats-unique").html(liczenie().unique); }); function curr_input_unique() { } function array_baz
a = $("#use").val(); if (0 == a.length) { return ""; } for (var a = replaceAll(" ", " ", a
(/ +(?= )/g, ""), a = a.split(" "), b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c], b) &&
) return b; } function liczenie() { for (var a = $("#User_logged").val(), a = replaceAll(" ",
replace(/ +(?= )/g, ""), a = a.split(" "), b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c],
c]); } c = {}; c.words = a.length; c.unique = b.length - 1; return c; } function use_uniqu
r b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c], b) && b.push(a[c]); } return b.leng
a count_array_gen() { var a = 0, b = $("#User_logged").val(), b = b.replace(/(\r\n|\n|\r)/gm, " ")
All(" ", " ", b), b = b.replace(/ +(?= )/g, ""); inp_array = b.split(" "); input_sum = inp_array
(var b = [], a = [], c = [], a = 0; a < inp_array.length; a++) { 0 == use_array(inp_array[a], c)
ray(a), b.push({word:inp_array[a], use_class:0}), b[b.length - 1].use_class = use_array(b[b.length
rray]); } a = b; input_words = a.length; a.sort(dynamicSort("use_class")); a.reverse();
keyword(a, " "); -1 < b && a.splice(b, 1); b = indexOf keyword(a, void 0); -1 < b && a.splice
indexOf keyword(a, ""); -1 < b && a.splice(b, 1); return a; } function replaceAll(a, b, c) {
new RegExp(a, "g"), b); } function use_array(a, b) { for (var c = 0, d = 0; d < b.length; d++) {
} return c; } function czy_juz_array(a, b) { for (var c = 0, c = 0; c < a.length; c++) { b[c].wo
return 0; } function indexOf_keyword(a, b) { for (var c = -1, d = 0; d < a.length; d++) {
b) { c = d; break; } } return c; } function dynamicSort(a) { var b = 1; "-
-1, a = a.substr(1)); return function(c, d) { return(c[a] < d[a] ? -1 : c[a] > d[a] ? 1 : 0
tion occurrences(a, b, c) { a += ""; b += ""; if (0 >= b.length) { return a.length + 1;
f = 0; for (c = c ? 1 : b.length; c) { if (f = a.indexOf(b, f), 0 <= f) { d++, f += c;
break; } } return d; } } $("#ago-button").click(function() { var a = parseInt($
al").a()), a = Math.min(a, 200), a = Math.min(a, parseInt(h().unique)); limit_val = parseInt($
limit_val = a); $("#limit_val").a(a); update_slider(); function(limit_val); $("#word-lit
var b = k(); h()); var c = 1(), a = "", d = parseInt($("#limit_val").a()), f = parseInt($("
shuffle_number").e()); function("LIMIT_total: " + d); function("rand: " + f); d < f && (f = d
and\u00f3\u000f3rand: " + f + "tops: " + d); var n = [], d = d - f, e; if (0 < c.length) {
< c.length; g++) { e = m(b, c[g]), -1 < e && b.splice(e, 1); } for (g = 0; g < c.leng
.unshift({use_wystepuje: "parameter", word:c[g]}); } e = m(b, " "); -1 < e && b.splice
void 0); -1 < e && b.splice(e, 1); e = m(b, ""); -1 < e && b.splice(e, 1); for (c = 0; c

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Data, Intelligence, & Tech X Summit, September 20-21, The Crystal, London

Procurement Leaders Data, Intelligence, & TechX Summit will explore in greater detail visionary topics such as robotic process automation, artificial intelligence, & the concept of new technologies replacing workers and how the procurement function can combat this. The Summit will host inspirational keynotes from leading companies including Microsoft, Google, SAB Miller, Nokia, and Centrica.

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