**2017’s Top 5 AI trends are about far more than technology- Stephen Ibaraki**

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We are now at a unique moment in world history – an inflection point in which we are starting to see an unprecedented acceleration of economic, cultural, and societal change.

This change is driven by what I call ‘A Triple C’:

* ***Automation****;*
* time ***Compression*** in new innovations;
* ***Convergence*** in biological and digital existences;
* ubiquitous ***Connectivity***.

The underlying catalyst of ‘A triple C’ is a digital Artificial Intelligence (AI) mesh created by the growing deployment of machine learning – the ‘[AI of Everything](https://itu4u.wordpress.com/2016/09/13/could-technical-standards-for-artificial-intelligence-help-us-achieve-the-sustainable-development-goals/).’

The rapid growth of AI, and its soon-to-be-ubiquitous presence in our daily lives is about far more than technology. AI has the potential to yield exponential overlapping amplification of value to government, industry, and education. But wariness of unintended consequences for society, economic development, and our paths to prosperity will increase in 2017.

**What are the top 5 AI trends to watch closely?**

**1: Closing in on intelligence through research**

[Deep Mind](https://deepmind.com/research/) will iteratively solve more aspects of intelligence, building on work such as the Differentiable Neural Computer, WaveNet, and Dueling Network Architectures for Deep Reinforcement Learning. [Juergen Schmidhuber](http://stephenibaraki.com/acm/interviews/v0916/juergen_schmidhuber_acm.html) will continue to gain wider recognition for his AI work based on deep-learning neural networks, and the practical applications stemming from it. (Also, [Pedro Domingos](http://www.itworldcanada.com/blog/pedro-domingos-the-master-algorithm-globally-renowned-top-researcher-leads-team-to-top-ai-prize/377083) recently provided a [compelling roadmap](https://www.youtube.com/watch?v=r2YiRiLAU_Y) on the integration of AI at [TEDxLA](http://tedx.la/). For a decidedly Google vision, follow [Jeff Dean](https://www.youtube.com/embed/vzoe2G5g-w4?list=PLn0nrSd4xjjZa4KDqFBCMOnk52CItWqyU).)

**2: Growing pushback against AI**

Expect growing pushback against AI due to concerns on a range of issues, including algorithmic and data bias, large populist movements, and privacy issues — as evidenced in the police seeking Amazon Echo data in a crime. And as more jobs become automated in 2017 due to AI advances, there will be a growing recognition that traditional labour-based paths to prosperity are radically changing for countries as well as people.

**3: Spotlights on ‘AI for Good’**

There will be growing interest in leveraging the power of AI for social good. This will come from governments, industry, as well as foundations. It will result in more major conferences such as the first [AI for Good summit](http://www.itu.int/en/ITU-T/AI/Pages/201706-default.aspx) to be co-hosted in Geneva, Switzerland in June by ITU and IBM Watson Artificial Intelligence XPRIZE. There is a determined effort to leverage AI technology to solve humanity’s most pressing challenges as embodied in the [17 United Nations Sustainable Development Goals](http://www.itu.int/en/sustainable-world/Pages/default.aspx).

**4: Looking ahead to the ‘4th Industrial Revolution’**

Looking five and ten years forward was typically the preserve of entities such as [Singularity University](https://su.org/). This is changing and will grow in 2017. Talk of the ‘[4th Industrial Revolution](https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/)‘ and AI’s central role in driving the merging of physical and cyber systems has gone mainstream.

In 2017, more industry, government, and academic players will discuss in detail what the new landscape could look like by 2022 or 2027.

We saw evidence of this with the top international conference on software engineering, [ICSE](http://www.icse-conferences.org/) 2016; and at the recent Fintech Ideas Festival where [futurists](https://www.youtube.com/watch?v=FODUBJBDsGA&feature=youtu.be) and more than [200 top CEOs and leaders](http://www.fsroundtable.org/fintech-ideas-festival-video-recap/) in financial services, technology and FinTech registered in January 2017. The event was so successful that planning is already underway for 2018. We have more evidence with [Digital Africa 2017](http://www.digitalafrica.com.ng/): the theme is the Fourth Industrial Revolution, Getting Africa Ready.

**5: Emerging guidelines for ethics and governance**

There will be an emerging set of guidelines on ethics and governance for AI, including on rights issues. For example, the European Parliament legal affairs committee has approved a robotics legal framework, including disabling and reprogramming of robots, robotic laws, insurance, rights and obligations, taxation and [universal income](https://singularityhub.com/2016/12/13/if-robots-steal-our-jobs-a-universal-basic-income-could-help/) for those displaced.

**What will we miss?**

There will be many other AI trends this year, many of which we failed to spot earlier due to ‘A Triple C’: hyper Automation, Compression, Convergence, Connectivity!

Keep in mind a few years ago, there were no Virtual Assistants/Chatbots, RoboAdvisors, Smartphones/Wearables, Sharing Economy with AirBnB/Uber, proliferating AR/VR, cheap and easy genetic editing with CRISPR Cas9.

What is just around the corner and what are the intended and unintended consequences? Is [this reality](http://www.fsroundtable.org/big-ideas-series-ai-of-everything-driving-a-financial-services-digital-quake/) near or far? We shall soon see.

**Stephen Ibaraki**

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*With more than 100 executive roles, lifetime achievement awards and recognitions, a few of Stephen Ibaraki’s positions include: co-chair Practitioner Board Association for Computing Machinery; founding chair Global Industry Council and vice-chair board IP3 International Federation for Information Processing; top 5 blogger* [*IDG-IT World*](http://www.itworldcanada.com/author/sibaraki) *(Canada); founding managing partner REDDS Venture Investment Partners; keynote at the International Conference on Software Engineering (Austin USA); founding chair Technology Advisory Council Financial Services Roundtable FinTech Ideas Festival (FSR: 92.7 trillion managed assets, 1.2 trillion annual revenue).There is more information as nominated founding fellow, past board chair and president government-chartered Canadian Information Processing Society*[*http://www.cips.ca/stephen-ibaraki*](http://www.cips.ca/stephen-ibaraki)*.*