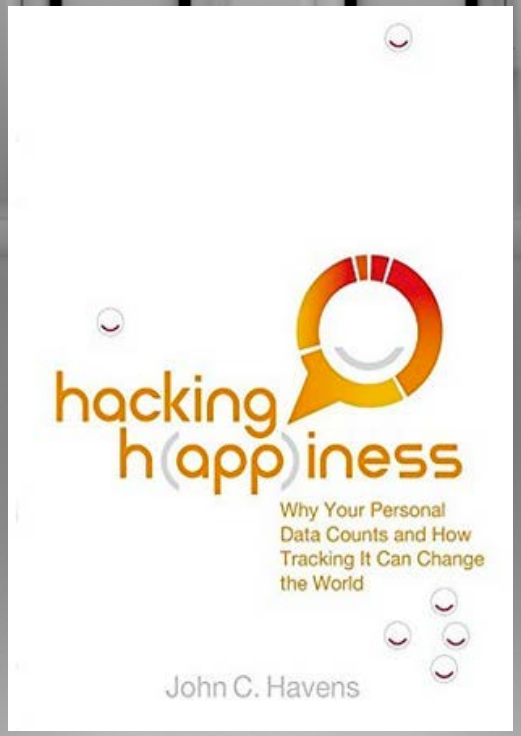
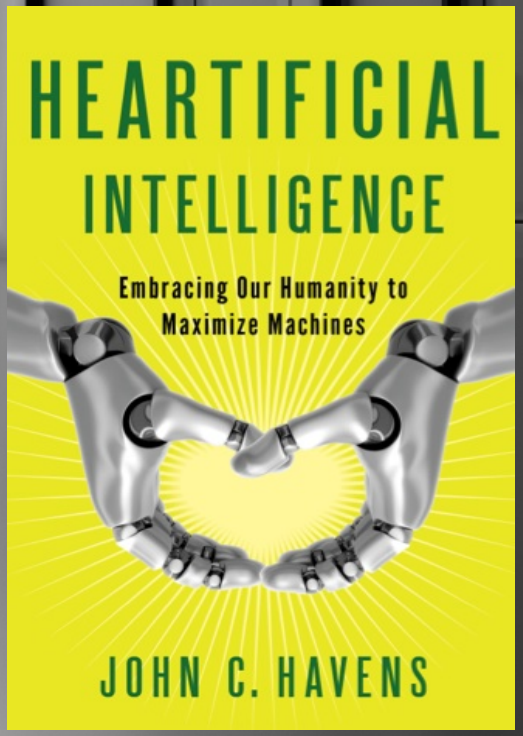
Design, Data, and Development

How AI Ethics is Transforming Engineering, Identity and Economics

@johnchavens





IEEE

IEEE STANDARDS ASSOCIATION

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The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems

An incubation space for new standards and solutions, certifications and codes of conduct, and consensus building for ethical implementation of intelligent technologies

INDUSTRY CONNECTIONS

- The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems
- Videos & Webinars
- News & Events
- Ethically Aligned Design, Version 1, Translations and Reports
- Download Ethically Aligned Design, Version 2

VIEW THE COMPLETE LIST OF IC ACTIVITIES

ABOUT

To ensure every stakeholder involved in the design and development of autonomous and intelligent systems is educated, trained, and empowered to prioritize ethical considerations so that these technologies are advanced for the benefit of humanity.

- View specifics regarding the Mission and deliverables for the Initiative.
- See a list of The Initiative's Executive and other Committees.
- Learn more from Frequently Asked Questions.

ETHICS IN ACTION

We've launched the second version of *Ethically Aligned Design!* View Launch Details.

Ethically Aligned Design, Version 2

Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems (A/IS) represents the collective input of several hundred participants from six continents who are thought leaders from academia, industry, civil society, policy and government. The goal of *Ethically Aligned Design* is to advance a public discussion about how we can establish ethical and social implementations for intelligent and autonomous systems and technologies, aligning them to defined values and ethical principles that prioritize human well-being in a given cultural context.

Inspiration for IEEE P7000 Working Groups

IEEE P7000™ - Model Process for Addressing Ethical Concerns During System Design

IEEE P7001™ - Transparency of Autonomous Systems

IEEE P7002™ - Data Privacy Process

IEEE P7003™ - Algorithmic Bias Considerations

IEEE P7004™ - Standard on Child and Student Data Governance

IEEE P7005™ - Standard on Employer Data Governance

IEEE P7006™ - Standard on Personal Data AI Agent Working Group

IEEE P7007™ - Ontological Standard for Ethically driven Robotics and Automation Systems

IEEE P7008™ - Standard for Ethically Driven Nudging for Robotic, Intelligent and Autonomous Systems

IEEE P7009™ - Standard for Fail-Safe Design of Autonomous and Semi-Autonomous Systems

IEEE P7010™ - Wellbeing Metrics Standard for Ethical Artificial Intelligence and Autonomous Systems

IEEE P7011™ - Standard for the Process of Identifying and Rating the Trustworthiness of News Sources

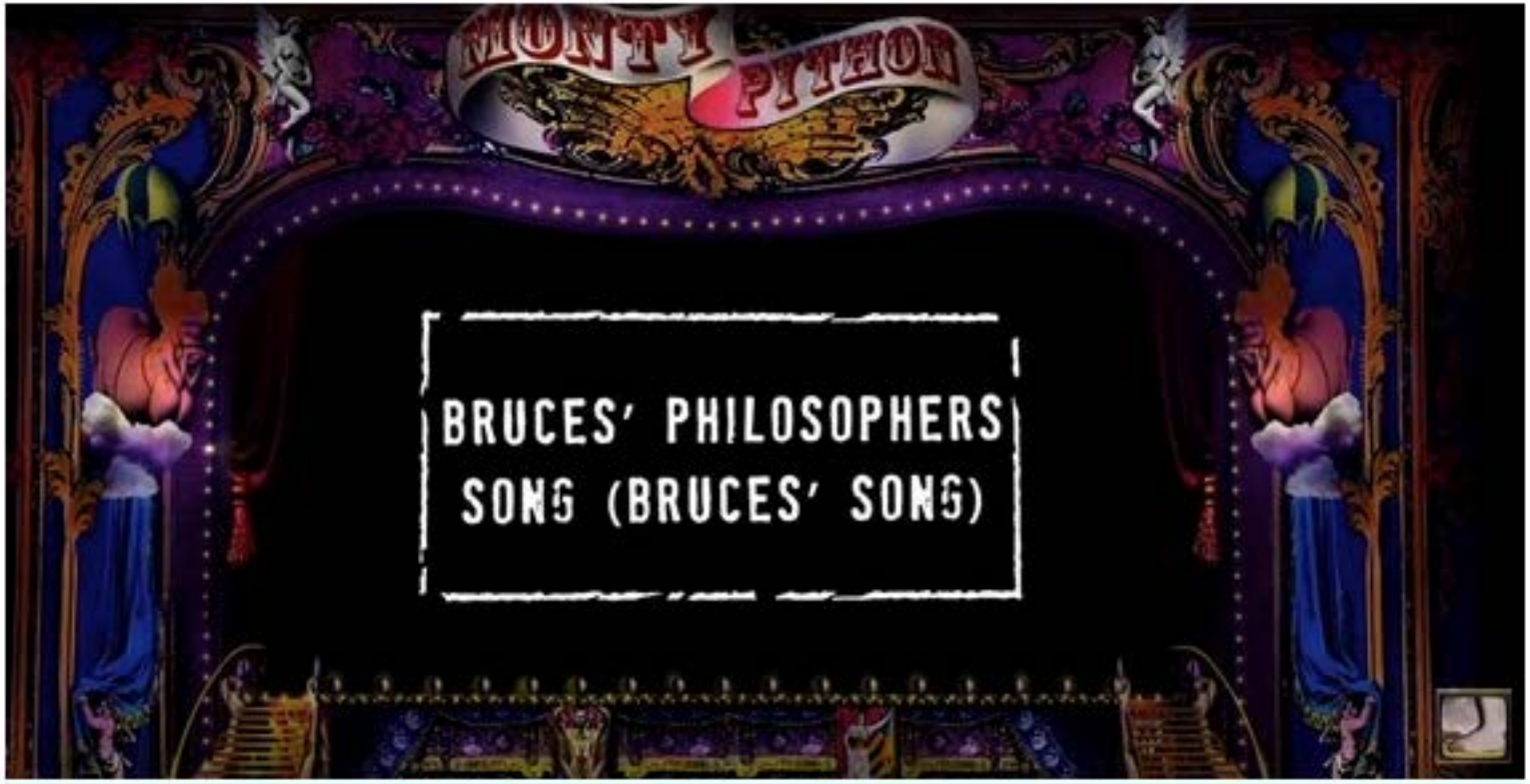
IEEE P7012™ - Standard for Machine Readable Personal Privacy Terms

AI Ethics in Song

An Introduction for your post-dining enjoyment

The PhilAlsopers Song

By John C. Havens



Turing's test caused wide unrest,
Is Siri a machine or our silicon mistress?

Minsky surmised, we're mechanically comprised,
Man and Bot are the same, we don't need your stupid test.

John Searle replied, it's a Chinese Room inside,
It's a program not consciousness.

"The Singularity, meanwhile," says Ray Kurzweil,
"Gives us 30 years at best."

There's nothing Deep Mind cannot rule by
observation and brute force.

Algorithmic-ally speaking, they're the techno Trojan Horse.

Watson's recent spree on Jeopardy,
Brought us cognitive computing on national TV.

Elon Musk, has some issues with the trust
Of existential risk combined with technocratic lust.

Steven Hawking, Steven Hawking, as of late has started squawking, "Colleagues, lets be gents.

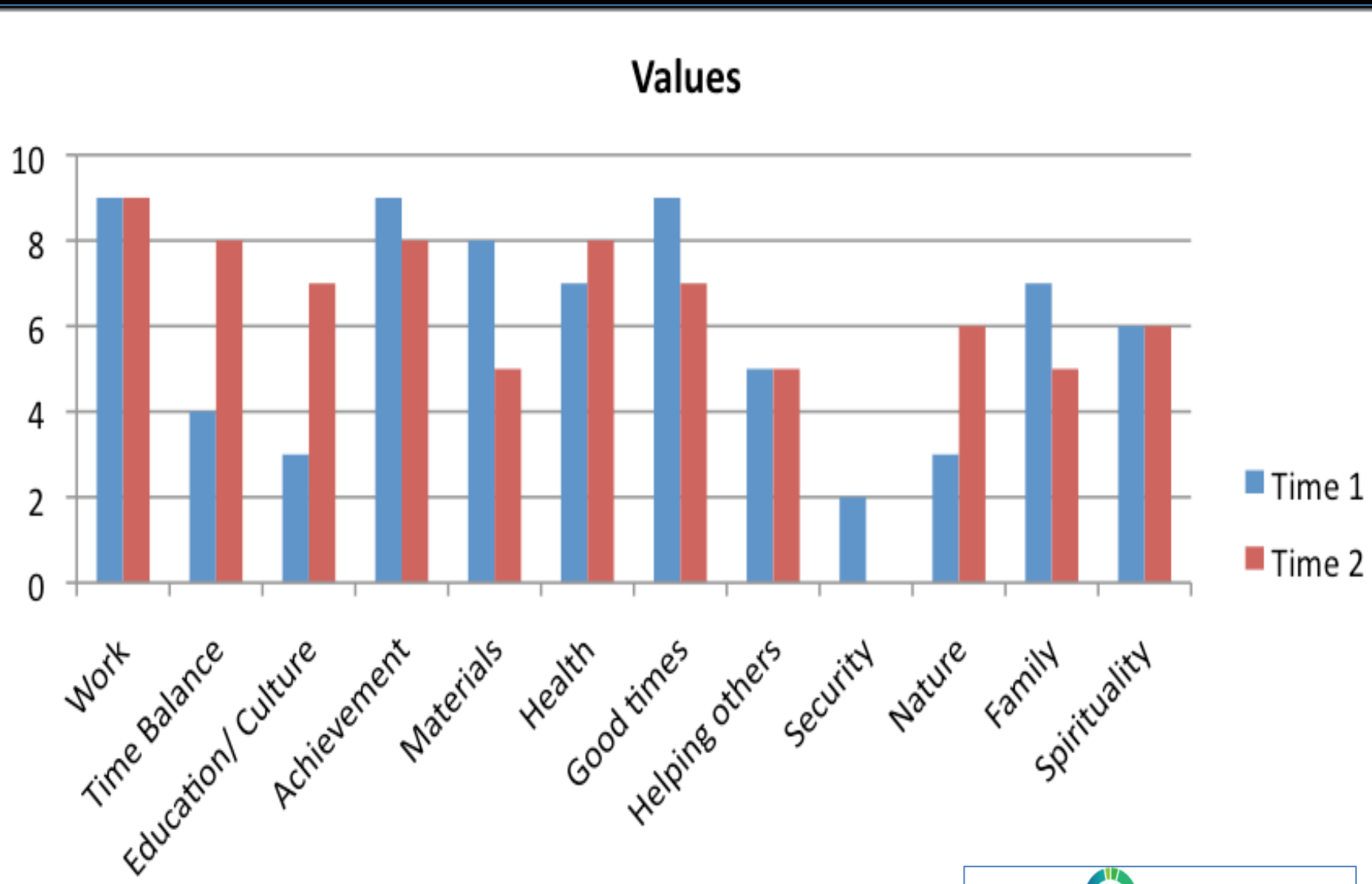
And align our goals to provably controlled,
Su-per Intelligence."

It's easier to build stuff without ethics, yes it's true.
But we need to do it now or humanity is screwed.

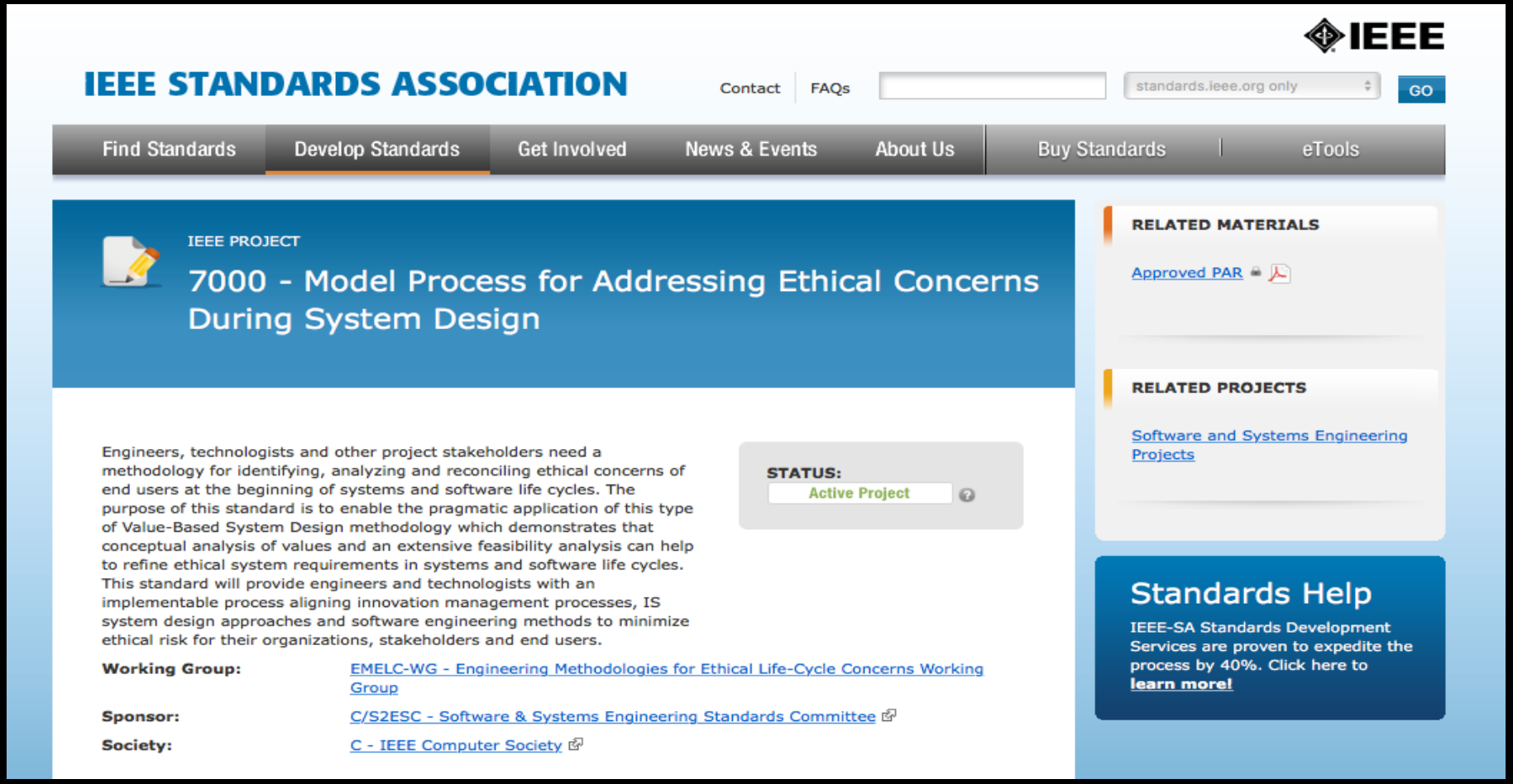
Design

How AI Ethics is Transforming Engineering, Identity and Economics

How will machines know what we value if we don’t know ourselves?



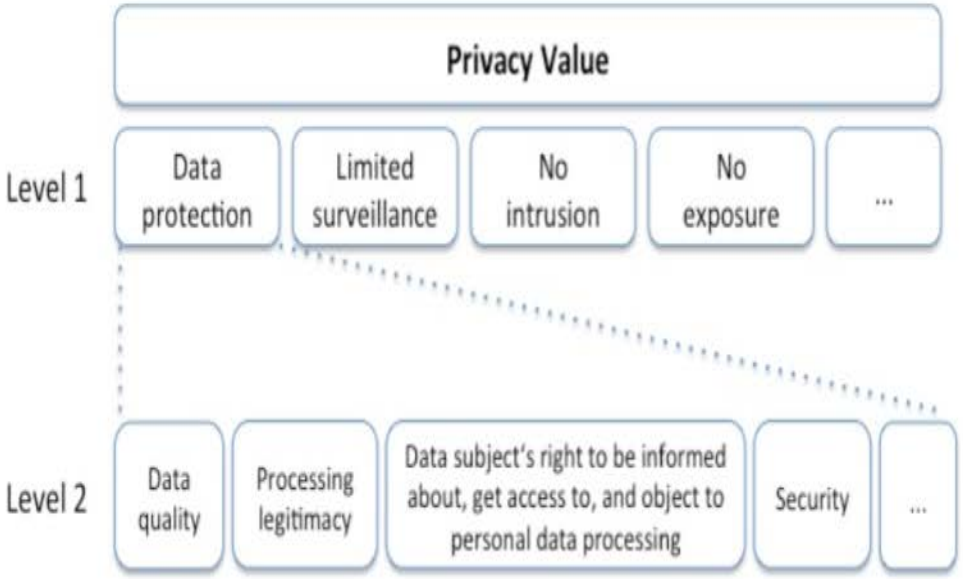
the h(app)athon project™



IEEE P7000 Approved Standards Working Group

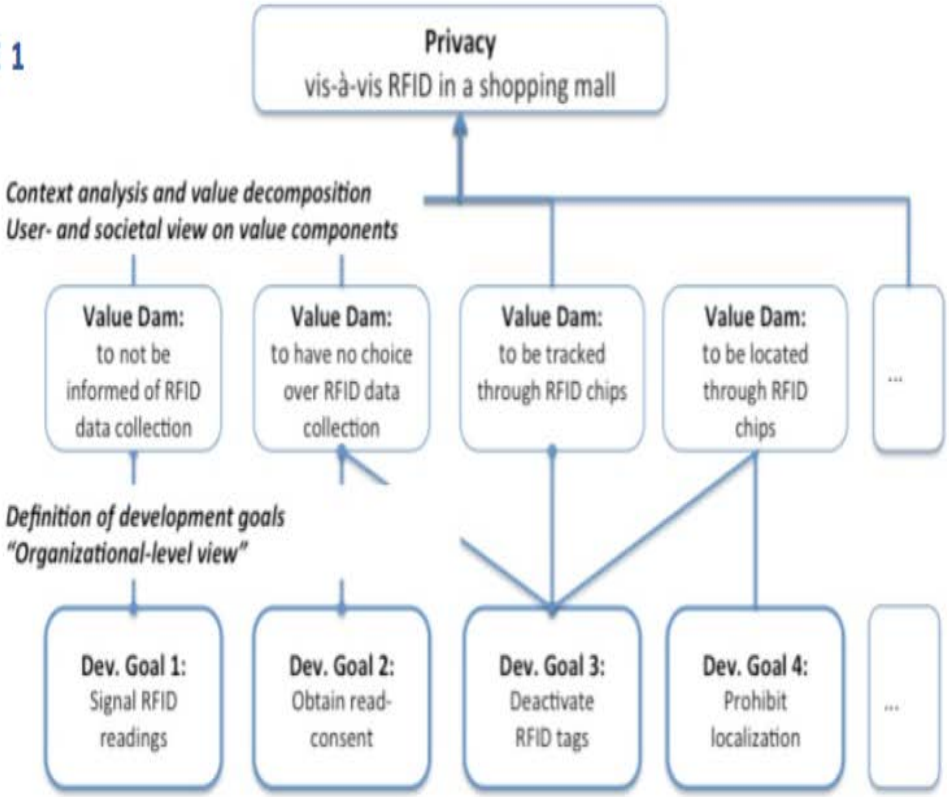
Conceptual analysis of values was already proposed by Batya Friedman's ‚Value Sensitive Design' Work.

Example of Conceptual Analysis: Breaking down the Meaning of a Value



Each value component is analyzed as to its value dams and value flows, which again translate into development goals.

EXAMPLE 1



Data

How AI Ethics is Transforming Engineering, Identity and Economics

“What do you have to hide?”

BRIAN BARRETT BUSINESS 04.09.18 08:23 PM

WATCH MARK ZUCKERBERG TESTIFY BEFORE CONGRESS LIVE RIGHT HERE

"What hotel did you stay at last night?"

Your first born child

In using this service, you agree to relinquish your first born child to F-Secure, as and when the company requires it. In the event that no children are produced, your most beloved pet will be taken instead. The terms of this agreement stand for eternity.

sovrin

identity for all

INTRODUCING SOVRIN

Sovrin is the world's only global public utility for trusted, self-sovereign identity. Like the Internet, it is not owned by anyone: everyone can use it and anyone can improve it.

AT SOVRIN'S CORE IS A DISTRIBUTED LEDGER ENGINEERED FROM THE GROUND UP FOR IDENTITY:

TRUE SELF-SOVEREIGNTY

Any person, organization, or thing can actually own their digital identity – not just control it – independent from any silo.

TRUST

Any person, organization, or thing can instantly verify the authenticity of "claims," including who (or what) something claims to be.

PRIVACY

Complete control of how, what and when information is shared, without added risk of correlation and without creating troves of breachable data.

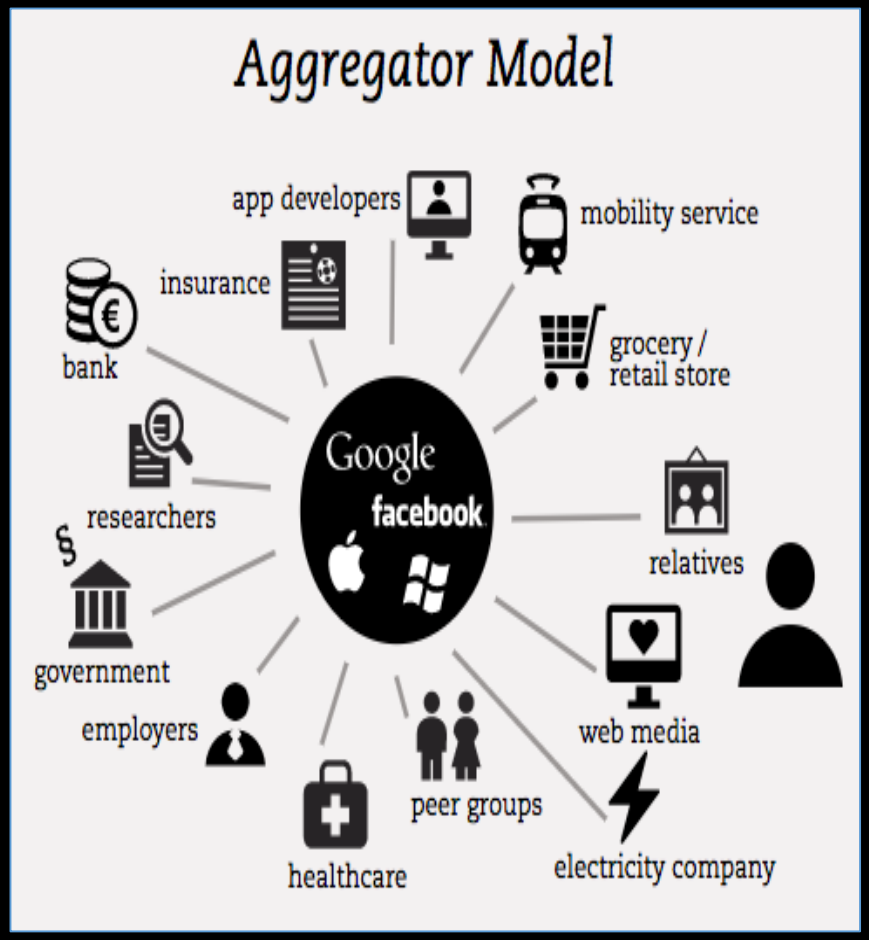
Credit unions look to blockchain to solve digital identity crisis

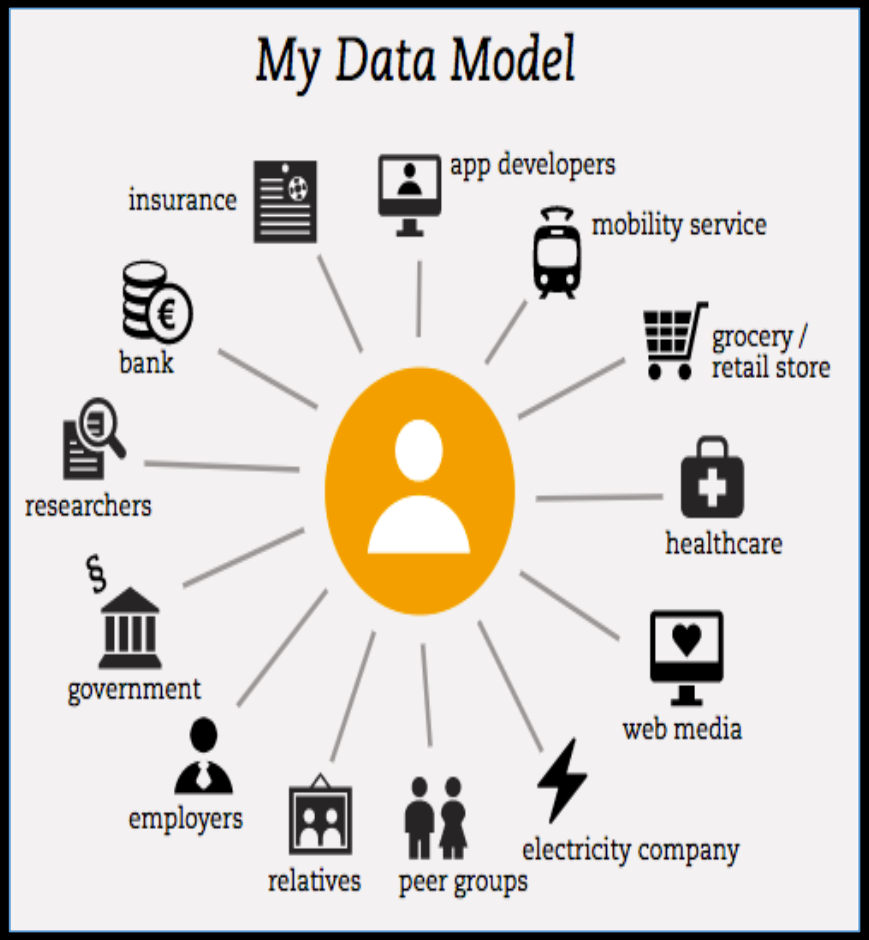
By
Brian Patrick Eha

Published
May 02 2017, 11:00am EDT

Identity is a tricky thing, for financial institutions as for philosophers. Banks and credit

In the CULedger test case, a customer who calls in to the credit union will be prompted to download an app on which she will create a encrypted identifier to be used only with her credit union. The next time she calls, she will be able to verify her identity using a thumbprint on her smartphone. For security reasons, her thumbprint won't be stored on the device itself.


Aggregator Model
app developers
mobility service
insurance
bank
grocery / retail store
Google
facebook
researchers
relatives
government
employers
web media
peer groups
healthcare
electricity company


My Data Model
insurance
app developers
mobility service
bank
grocery / retail store
researchers
healthcare
government
web media
employers
relatives
peer groups
electricity company

Development

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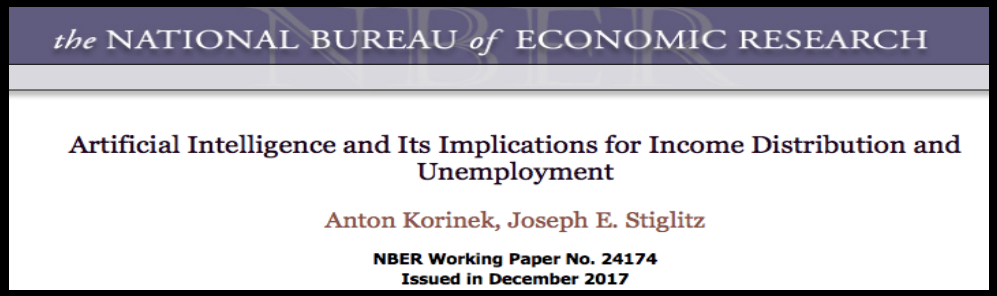
PwC research shows global GDP could be up to 14% higher in 2030 as a result of AI – the equivalent of an additional $15.7 trillion – making it the biggest commercial opportunity in today's fast changing economy



- Economists Anton Korinek (Johns Hopkins University) and Joseph E. Stiglitz (Columbia University) believe economic inequality "is one of the main challenges posed by the proliferation of artificial intelligence and other forms of worker-replacing technological progress."

- Korinek and Stiglitz believe we're heading for a period similar to the Great Depression when agricultural innovations meant fewer workers were needed to produce food.

- A lack of relevant skills will mean a vast majority of the workforce are unprepared to fill new jobs made available because of AI.

From an Article by Ryan Daws in AINews

HOW MEDIEVAL ACCOUNTANTS AND AI CREATED THE JOBLESS FUTURE

Thanks to accounting conventions and tax laws...a robot doesn't need to be better - or more efficient - than a human being at a task to make a business more profitable.

It just needs to be 34% as good, or 11% as good, depending on that business's accounting and amortization policies.

From an Article by John Sharp in Hatcher+

Phrases You'll Never Hear Regarding AI Today

AI automation means all the tedious jobs will be done by machines so people can pursue more meaningful jobs.

Here's the website to go to have your bills paid and reskilling paid for once your job is replaced!

Phrases You'll Never Hear Regarding AI Today

We think there's a number of business sectors and job types that AI shouldn't automate.

Could all the companies working in these sectors please stop working on AI and automation even though you're leaving huge amounts of money on the table?

People are freaking out about this stuff.

Phrases You'll Never Hear Regarding AI Today

Even though there's 15.7 trillion dollars to be made by 2030, we're also not sure how the question of AI automation will work out.

So could all the companies working in this space just take a few years and slow down so policy can catch up and we can make sure everyone's taken care of?

The Phrase You Always Hear

Don't hinder innovation.

What This Really Means

Don't mess with my money.

What's Not Fair (and Doesn't Make Sense) to Say to Corporations

- Increase shareholder value exponentially.
- Protect people's jobs.

AI Automation and Reality

Unless we move Beyond GDP, there is no valid business reason to not automate every human job as quickly as possible.

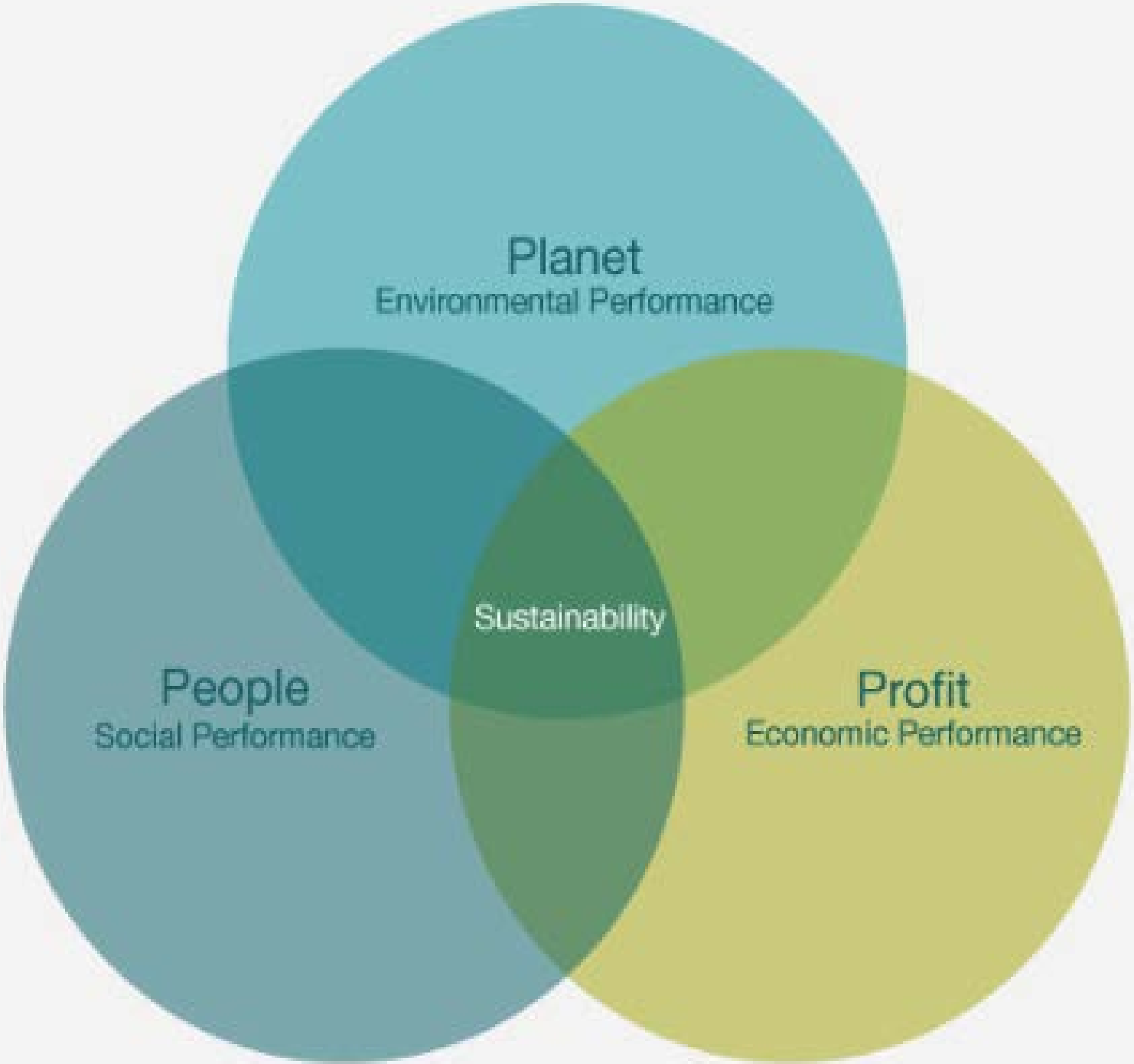
Economics in the Algorithmic Age

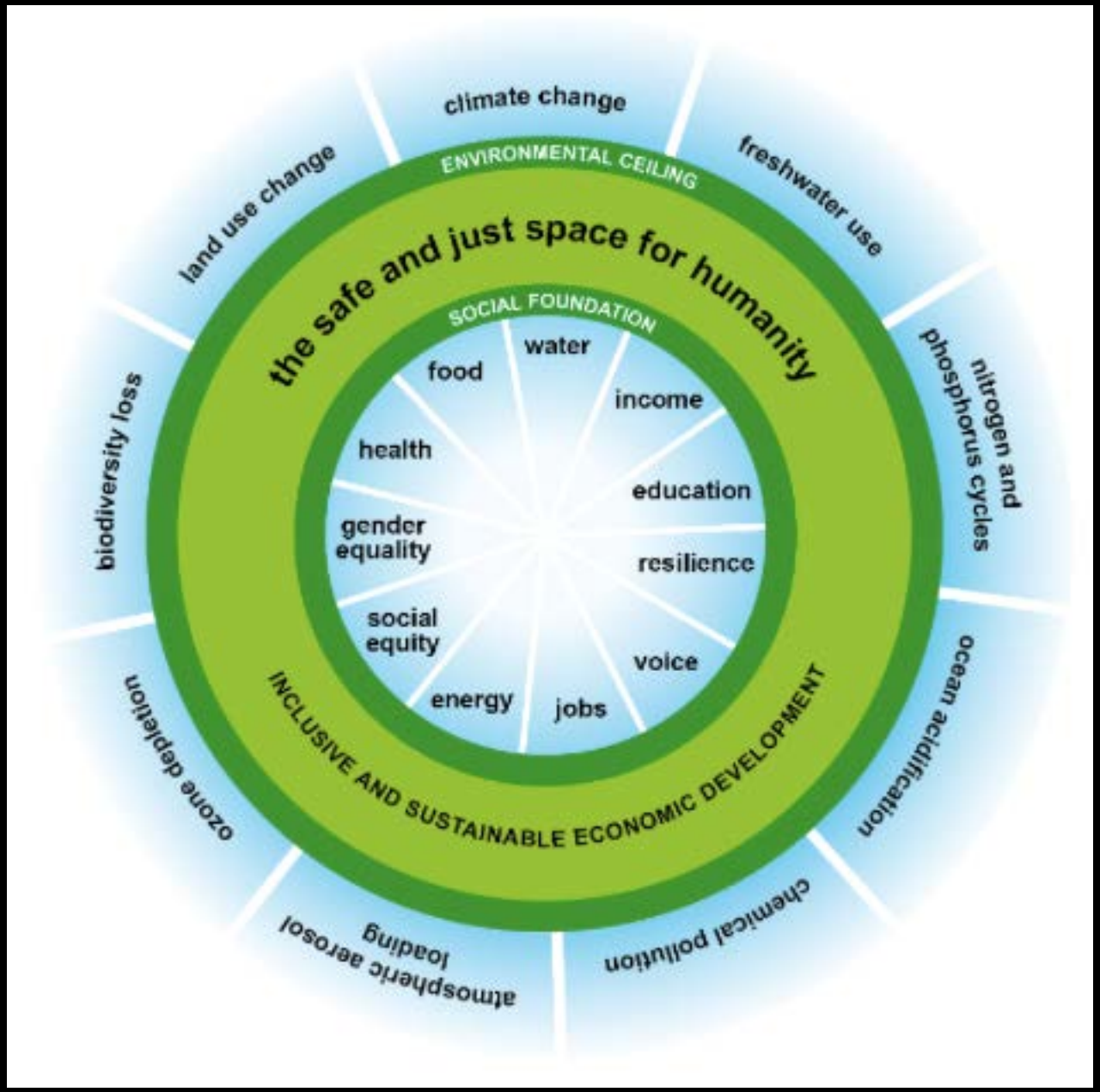
Can we innovate innovation?


GDP is not a good measure of economic performance, it's not a good measure of well-being
Joseph Stiglitz
Economist

The purpose of the corporation must be redefined as creating shared value, not just profit per se. This will drive the next wave of innovation and productivity growth in the global economy.

— Michael Porter —


Planet
Environmental Performance
Sustainability
People
Social Performance
Profit
Economic Performance


climate change
land use change
freshwater use
biodiversity loss
nitrogen and phosphorus cycles
ozone depletion
ocean acidification
atmospheric aerosol loading
chemical pollution
ENVIRONMENTAL CEILING
the safe and just space for humanity
SOCIAL FOUNDATION
water
food
income
health
education
gender equality
resilience
social equity
voice
energy
jobs
INCLUSIVE AND SUSTAINABLE ECONOMIC DEVELOPMENT

Prioritizing Human Well-being in the Age of Artificial Intelligence

The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

standards.ieee.org/develop/indconn/ec/autonomous_systems.html

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Advancing Technology for Humanity

The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

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Thank You!

johnchavens.com
@johnchavens