



## How can the compliance officer be intelligent about AI?

Deborah Lynne Adleman  
US & Americas Data Protection Leader  
Ernst & Young LLP  
deborah.adleman@ey.com

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The better the world works.

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## Today's topics

1 AI: the lingo and the landscape

2 AI: risks — visible and invisible

3 AI: an intelligent road map for the compliance officer

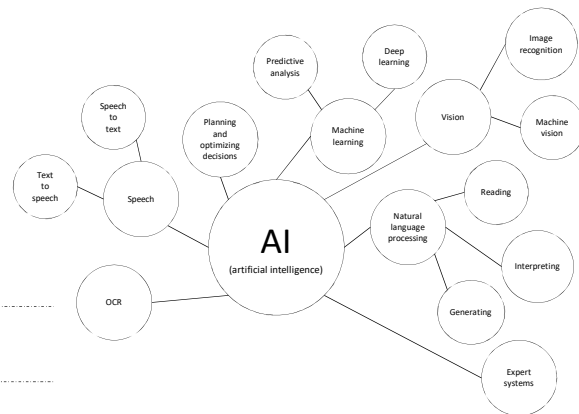
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## AI: the lingo and the landscape



1 AI is confusing, even to experts.

2 AI is a form of automation.

3 AI can be a capability or consumed as a service or feature.

4 AI is not IT; IT is more applied than implemented.

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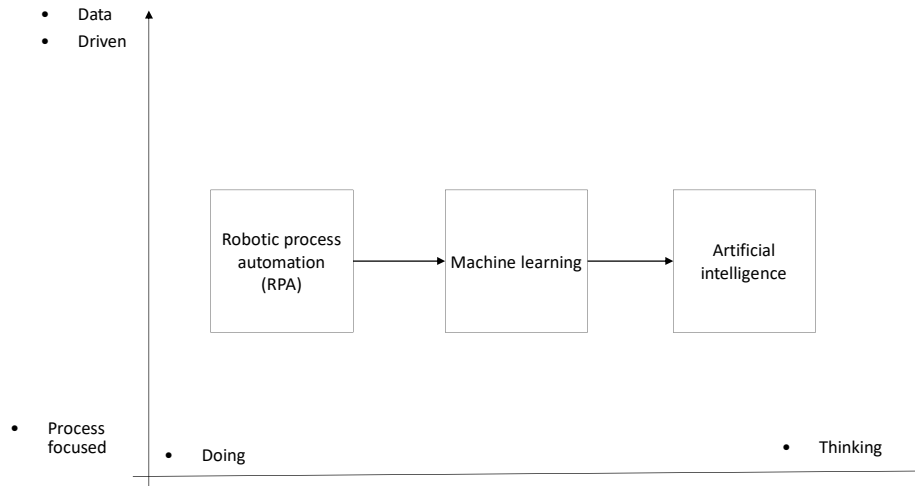
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## AI: the lingo and the landscape

### The road to artificial intelligence



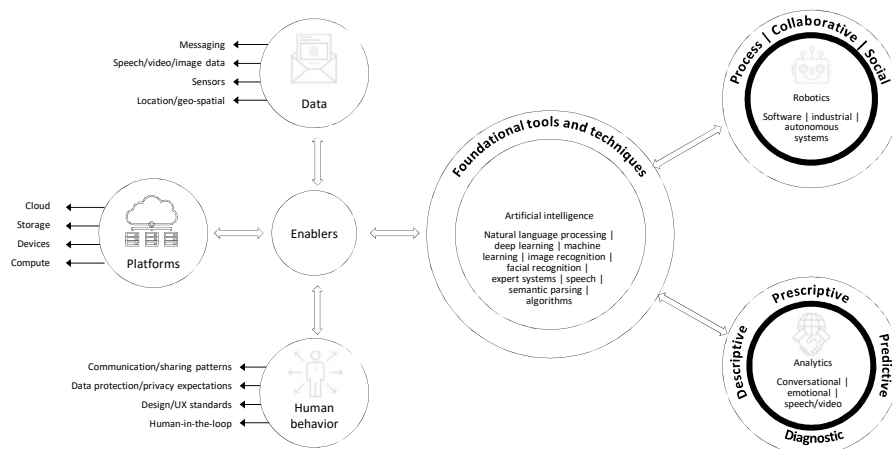
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## AI: the lingo and the landscape



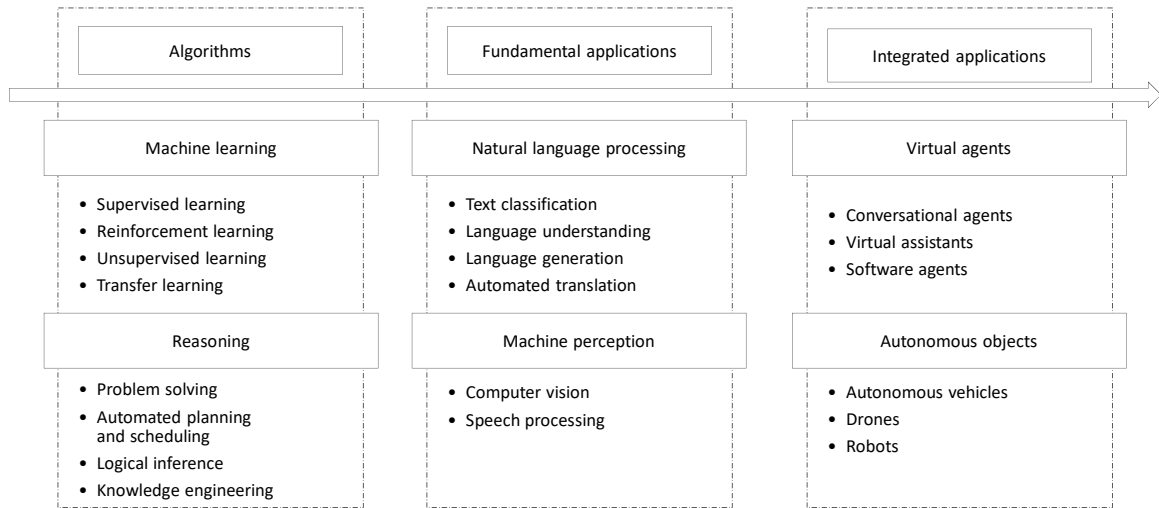
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## AI: the lingo and the landscape



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## AI: the lingo and the landscape

Every challenge in the world, and in business in particular, is an opportunity for AI.



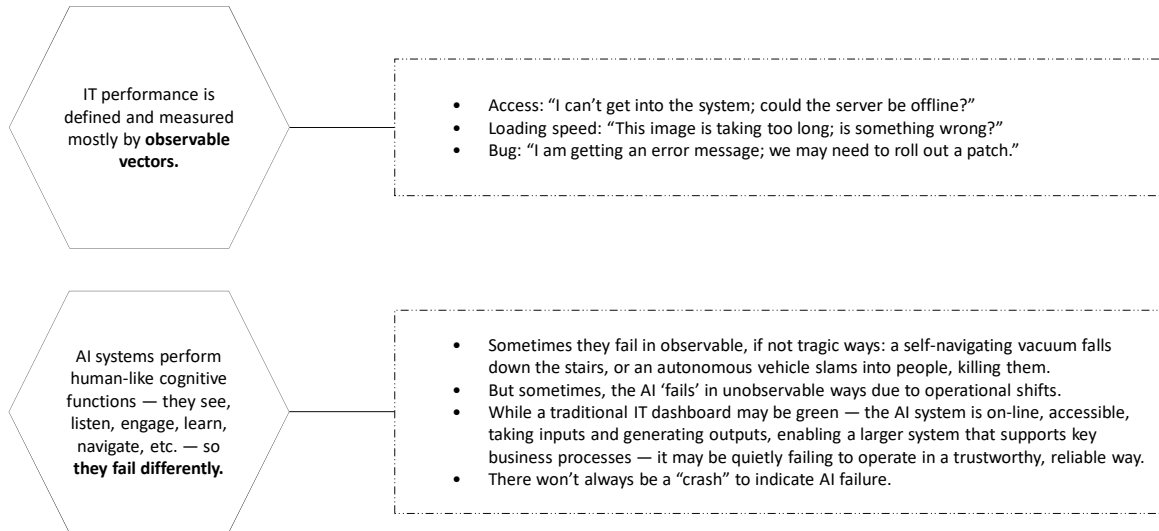
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## AI: risks — visible and invisible



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## AI: risks — visible and invisible

### AI brings a balancing act between regulation and innovation

European Commission issues ethics guidelines for trustworthy AI, April 2019

European Commission > Futurium



Ethics Guidelines for Trustworthy AI

Join AI Ethics Guidelines

- Human agency and oversight
- Technical robustness and safety
- Privacy and data governance
- Transparency
- Diversity, nondiscrimination and fairness
- Societal and environmental well-being
- Accountability

General Data Protection Regulation



- GDPR includes rules related to profiling and automated decision-making.

Country-level regulations



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## AI: risks — visible and invisible

### Using AI to see like humans

Researchers demonstrated using a few-pixels attack that deep neural networks can be fooled by modifying a well-placed pixel. Imperceptible to the human eye, these changes significantly altered the output produced by the AI models.

(adversarial attack)

Using reverse engineering, researchers tested two highly accurate algorithms in identifying the image of a horse and discovered that one used a shortcut — it utilized the copyright tag on the bottom of the image to identify the horse images.

(underfitting)

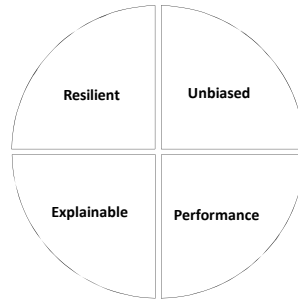
### Using AI to think like humans

AI algorithms used by US courts to profile a defendant's risk of committing more crimes have raised concerns about inherent bias toward minorities. There has been a call for greater transparency in AI models used by public institutions.

(data bias)

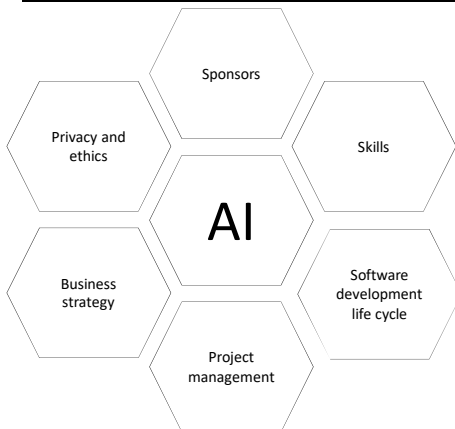
Chatbots designed to read, interpret and adapt to written language have demonstrated bigoted and racist behavior when performance parameters were too narrowly focused on grammatical correctness and not "political" correctness.

(lack of precision)



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## AI: risks — visible and invisible



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How will employees or citizens respond?

02

How will they influence employees' day-to-day activities?

03

How do you consider all legal, ethical and social ramifications are not overlooked before implementing AI within your organization?

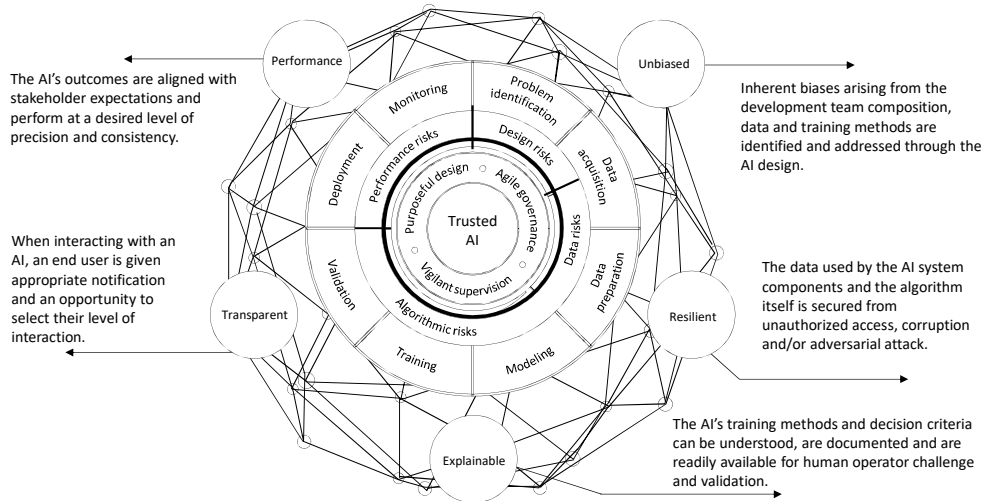
How can communication programs win employee approval?

How can ethics and legal issues be dealt with at the start of any project?

How can job consequences be evaluated?

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## AI: an intelligent road map for the compliance officer



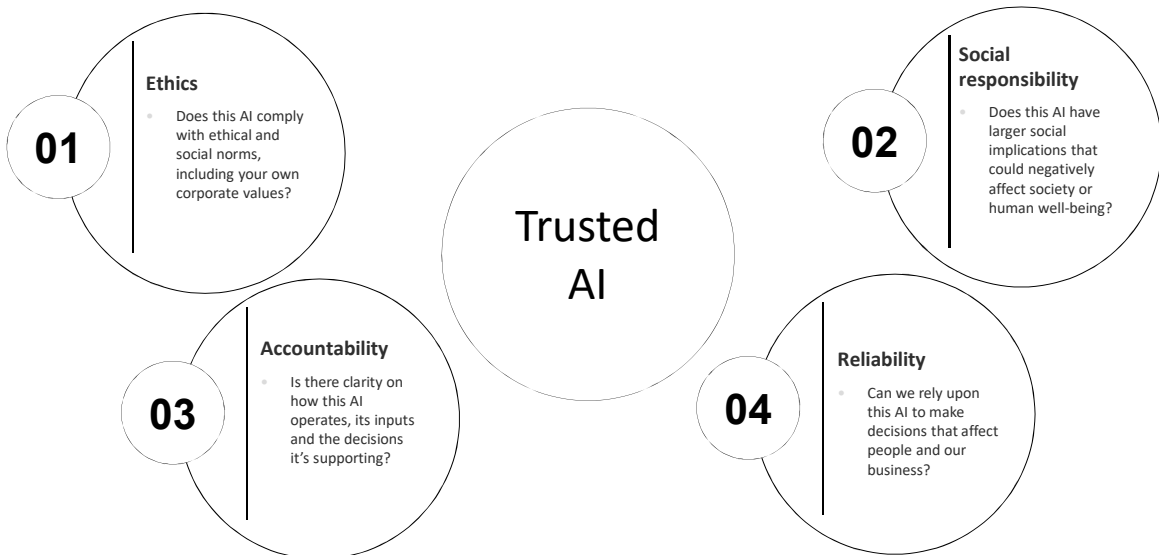
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## AI: an intelligent road map for the compliance officer



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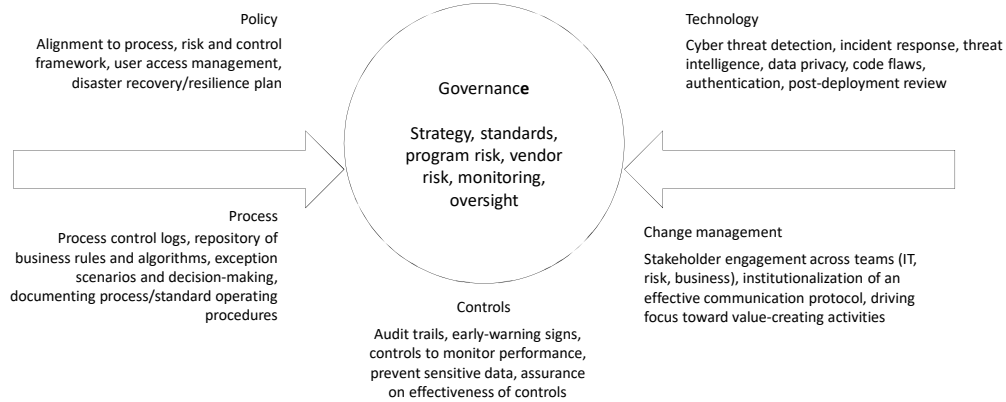
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## AI: an intelligent road map for the compliance officer

The six domains outlined below play a critical role in successful implementation of an AI program.



Traditional risk and control categories apply to AI technology, but each brings its own unique risk considerations.

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## AI: an intelligent road map for the compliance officer

<b>Intelligent automation advisory board</b>	A multidisciplinary advisory board providing independent advice and guidance on ethical considerations in intelligent automation development <ul style="list-style-type: none"> <li>Advisors should be drawn from ethics, law, philosophy, technology, privacy, regulations and science. The advisory board should report to and/or be governed by the Board of Directors.</li> </ul>
<b>AI ethical design standards</b>	Intelligent automation design policies and standards for the development of AI, including updates to the code of conduct and creation of intelligent automation design principles <ul style="list-style-type: none"> <li>The intelligent automation design standards should define and govern the governance and accountability mechanisms to safeguard users, follow social norms and comply with laws and regulations.</li> </ul>
<b>AI inventory and impact assessment</b>	An inventory of all RPA and AI agents, including key details of the agents, that is generated using software discovery tools <ul style="list-style-type: none"> <li>Each agent in the inventory should be subject to an impact assessment to assess the risks involved in its development and use.</li> </ul>
<b>Validation tools</b>	Validation tools and techniques to confirm the agents are performing as intended and are producing accurate, fair and unbiased outcomes <ul style="list-style-type: none"> <li>For AI, these tools can also be used to monitor changes to the algorithm's decision framework.</li> </ul>
<b>Awareness training</b>	Educating executives and intelligent automation developers on the potential legal and ethical considerations for the development of RPA and AI, and their responsibility to safeguard impacted users' rights, freedoms and interests
<b>Independent audits</b>	Undergoing independent RPA as well as AI audits by a third party against your intelligent automation and technology policies and standards, and international standards, to enhance users' trust in your environment <ul style="list-style-type: none"> <li>An independent audit would evaluate the sufficiency and effectiveness of the governance model and controls across the RPA and AI life cycle, from problem identification to model training and operation.</li> </ul>

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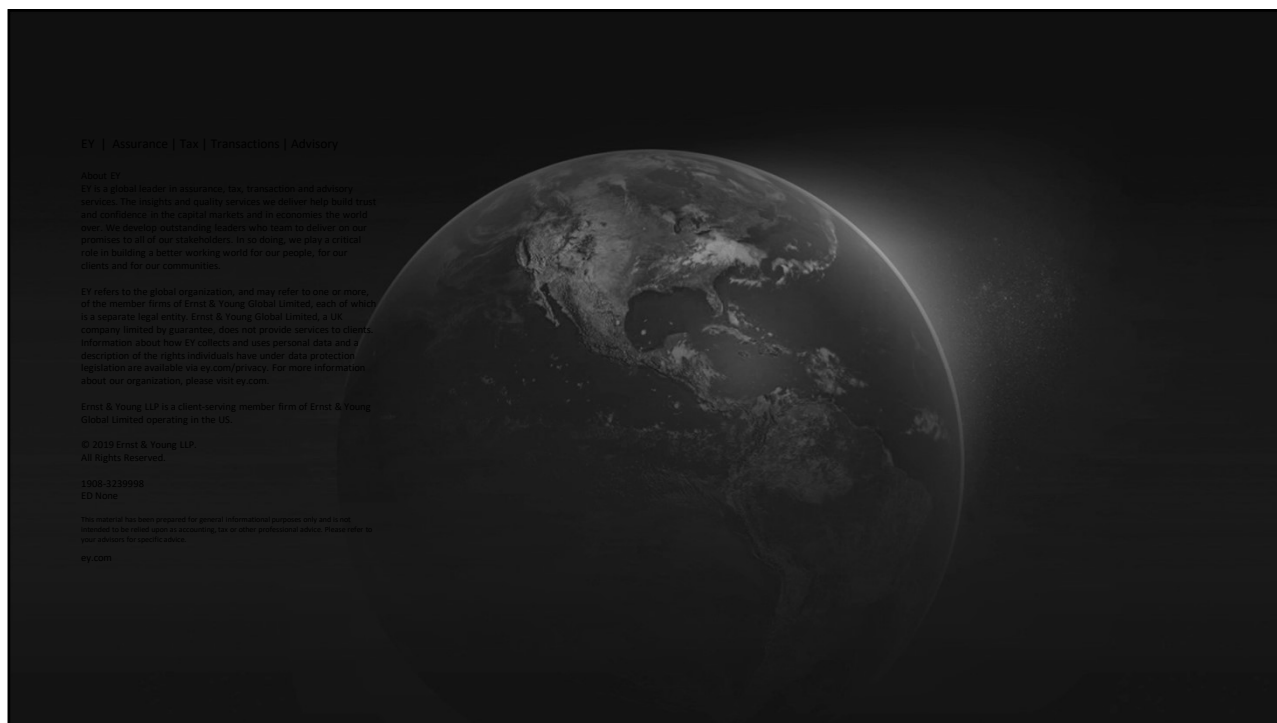


# AI

## Discussion

Deborah Lynne Adleman  
US and Americas Data Protection Leader  
Ernst & Young LLP  
deborah.adleman@ey.com

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