Emerging Technologies and Impact Assessment

IAIA Webinar
Sept. 18, 2018

Presenter: Marla Orenstein
Moderator: Bridget John
(bridget@iaia.org)

IAIA Webinar Series

- Accessing and Interpreting **Biodiversity** Information for High-level Biodiversity Screening
- Empowering **Indigenous Voices** in Impact Assessment
- Understanding Impacts on Vulnerable Populations through **Psycho-Social Impact Assessment**
- **Health** Considerations in Impact Assessment
- **Resettlement** and Impact Assessment – Points of Intersection
- *And several more…*

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Housekeeping

Recording? ✓

Questions? ✓

Slides available? ✓

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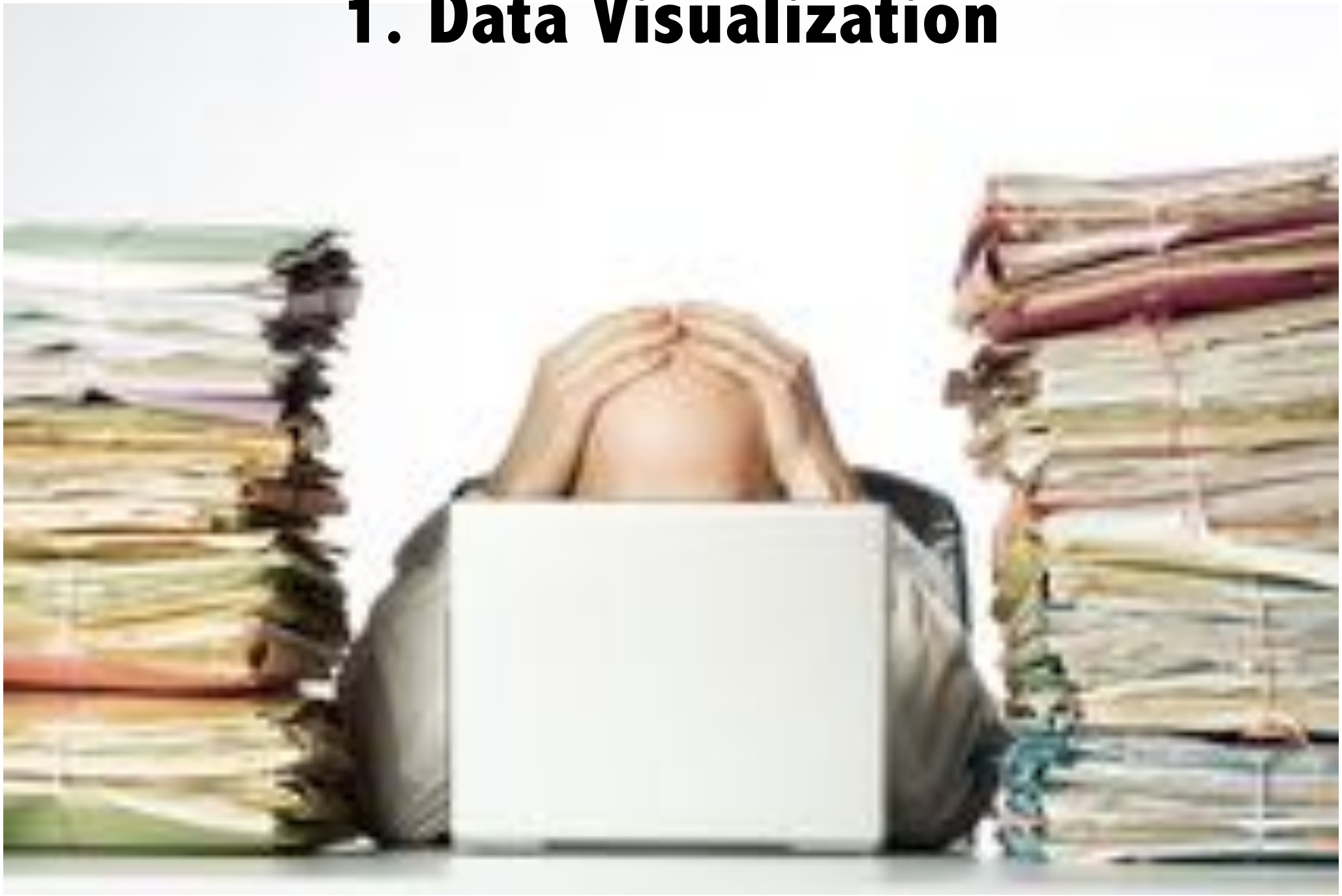
IA has
remained
static.

Part 1:
THE TECHNOLOGIES

1. Data Visualization



1. Data Visualization

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2. Remote sensing

2. Remote sensing

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2. Remote sensing

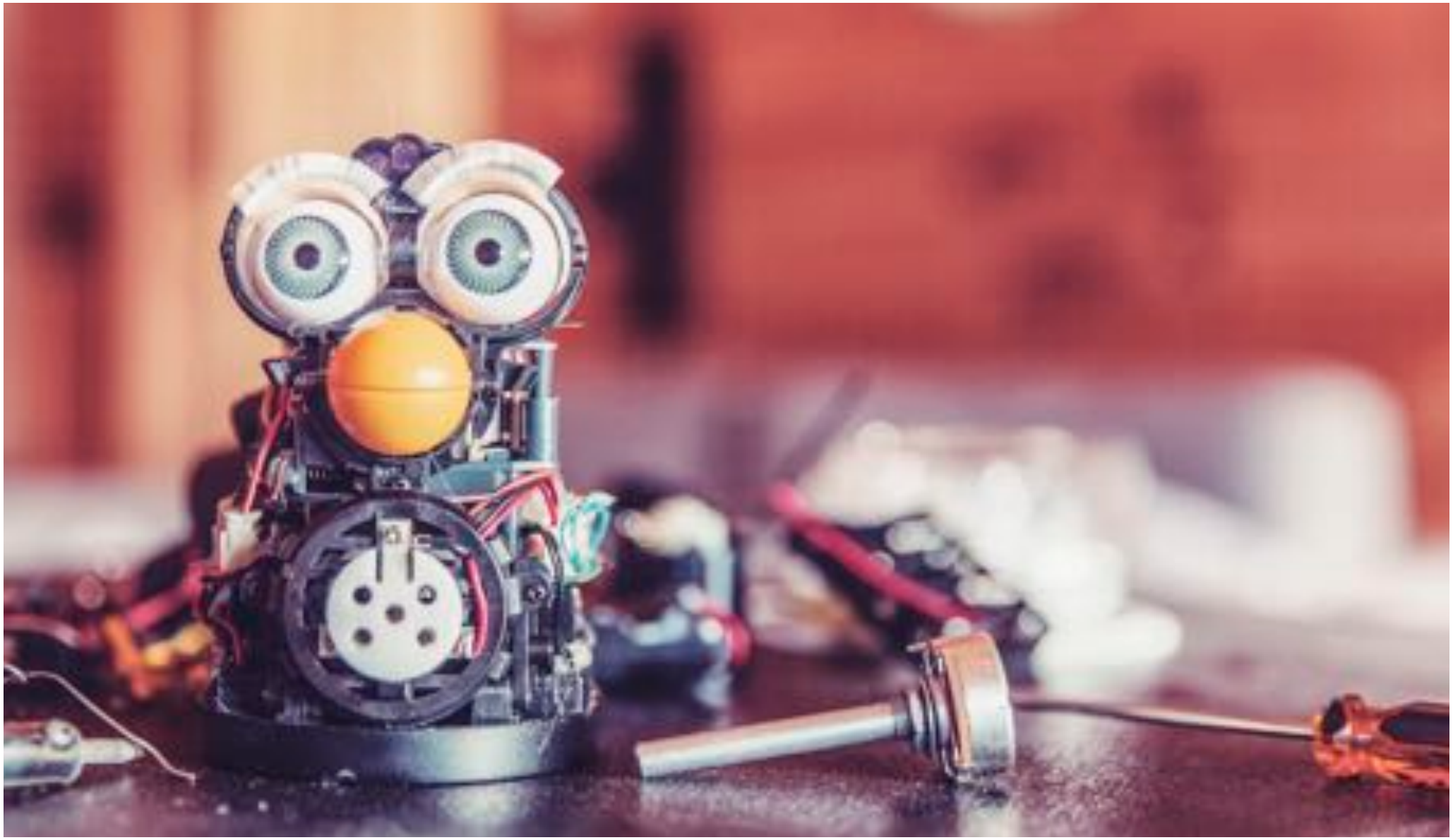
3. Blockchain

3. Blockchain

3. Blockchain

3. Blockchain

4. Artificial Intelligence



4. Artificial Intelligence

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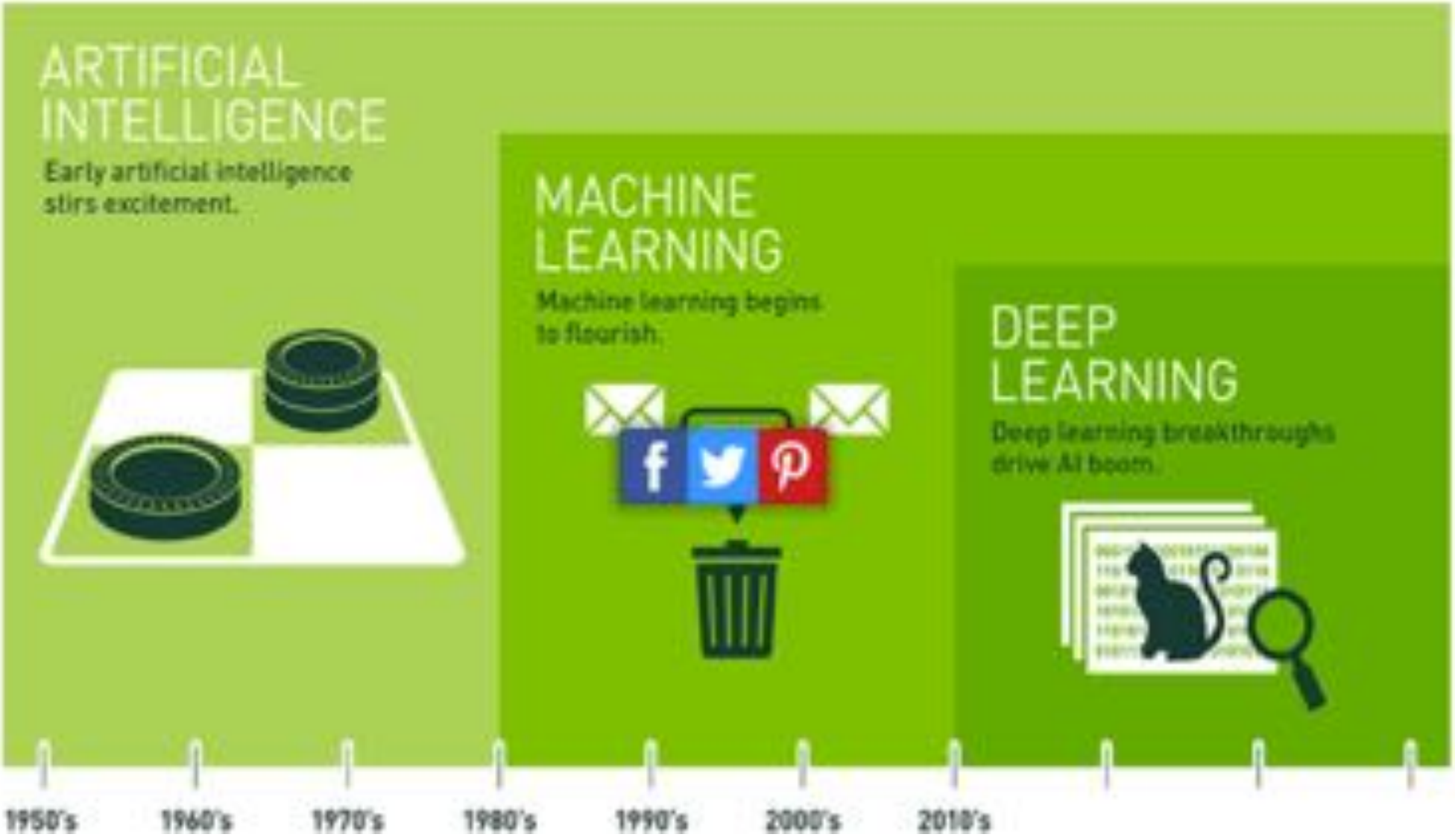

Source: https://blogs.nvidia.com/blog/2016/07/29/whats-difference-artificial-intelligence-machine-learning-deep-learning-ai/

Part 2:
AIAIA

What's the best use of AI in IA right now?

- Scoping
- Baseline data compilation
- Analysis

Scoping

Scoping

VERDICT: Relatively easy ‘win’ for computers in IA. Likely to enable better scoping through inclusion of more information, and a more rigorous and transparent process of selecting valued components.

Baseline data compilation

Baseline data compilation

VERDICT: Methodological hurdles (e.g., what is good vs. bad information) but conceptually simple. Early area for uptake of AI in IA.

Assessment

Assessment

VERDICT: More methodologic challenges, but potentially a huge value-add.

Part 3:
THE IMPLICATIONS

This is the juicy stuff.

- **Human values and AI: who gets to decide what's best?**
- **Will we all be replaced by computers?**
- **Who wins and who loses?**

Human values and AI

Will we all be replaced
by computers?

Who wins and who loses

- **Communities**: if IA is faster, cheaper and easier, maybe more will be done.

- **Regulators**: better if the IA is more transparent or rigorous. Also better if better presentation or visualization of information.

- **Proponents**: will it reduce cost? Provide more ‘bang for the buck’?

- **Consulting companies:** more work with greater efficiency. Move away from billable hour trap.

New IAIA group!

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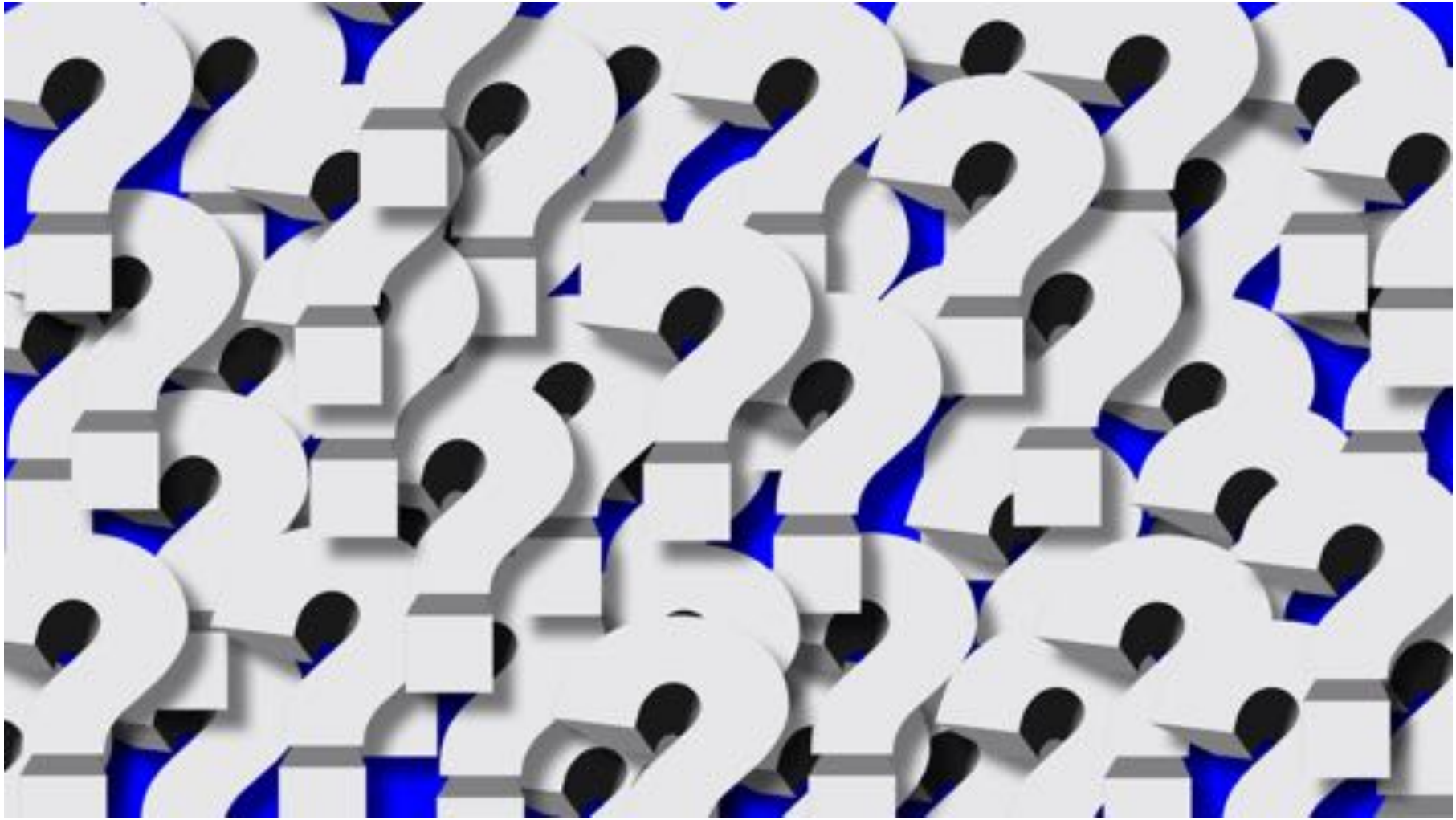
Questions?



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