

**Why, AI.**




**BUSTED**  
MYTH



AI is disrupting knowledge work.

MYTH



A top-down view of a desk with a wooden surface. Several sheets of white paper are scattered across it, featuring architectural sketches of buildings and structures. A few pens and markers are also visible, including a gold pen on the left and several black and blue markers on the right. The text "New tasks are created in the process and the tasks that can be automated are usually very modular and delimited." is overlaid in white, bold, sans-serif font.

**New tasks are created in the process and the tasks that can be automated are usually very modular and delimited.**

**BUSTED**

MYTH



## The myth

Myth: AI is disrupting knowledge work

or DOA - Disruption Opposition Automation

Photo by Arseny Togulev



Jan 13, 2020, 01:39pm EST | 4.396 views

# Where Artificial Intelligence Will Disrupt Next

Source:  
<https://www.forbes.com/sites/joemckendrick/2020/01/13/where-artificial-intelligence-will-disrupt-next/>



**SERIAL ENTREPRENEUR**

By Ben Bloch, Contributor, CIO | DEC 18, 2019 5:30 AM PST

OPINION

## 4 industries to watch for AI disruption

In 2020 we will see the continued impact of AI and machine learning in new industries that will not only help to support businesses, but also consumers.

Source: <https://www.cio.com/article/3509962>



**Harvard Business Review**

Exponential View with Azeem Azhar / Bonus

## Disrupting the Insurance Industry with AI

Source: <https://hbr.org/podcast/2019/08/disrupting-the-insurance-industry-with-ai>



Die digitalen 20er-Jahre

## Was Künstliche Intelligenz verändert? Alles!

08.01.2020, 15.24 Uhr

Source:  
<https://www.manager-magazin.de/unternehmen/industrie/kuenstliche-intelligenz-was-sie-aller-es-veraendert-a-1303985.html>

Auf viele warte die Arbeitslosigkeit, ist sich der Philosoph Richard David Precht sicher: Die Digitalisierung werde Millionen Arbeitsplätze verschwinden lassen. Selbst IT-Jobs seien bedroht, sagt er am Mittwoch auf der Hannover Messe. Er gehe davon aus, dass Roboter sich künftig selbst programmierten.

Source:  
<https://www.ostsee-zeitung.de/Nachrichten/Wirtschaft/Kollege-KI-uebernimmt-Hat-unsere-Arbeit-noch-Zukunft>



Source: Der Spiegel 14/1964, 16/1978, 36/2016

## Research team



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## Research motivation

- Advancements in the field of AI enabled the development of new applications in the context of work
  - Predictions that AI adoption will be associated with substantial changes in the workplace:
    - automation and/or augmentation of human work
    - emergence of new forms of work and replacement of certain jobs
    - prediction that even “knowledge work” will be impacted by the adoption of AI
- **While experts agree that the deployment of AI will change work, we have insufficient knowledge of what this change looks like - especially in the context of knowledge work**

Sources: e.g. Arntz et al., 2018; Brynjolfsson & McAfee, 2014; Faraj et al., 2018; Frank et al., 2019; Tschang & Mezquita, 2020; Susskind & Susskind, 2015

# Research approach: qualitative mixed-method research design

## Stakeholders



Employees



Developers



Work representatives



Managers



Experts

## Research

Practice case collection

Expert interviews

Case studies

## Outputs

Academic publications

Other publications [1, 2](#)

Internal reports

Talks & panels [1](#)

Public events [1, 2](#)

Media interviews [1, 2, 3](#)

Workshops

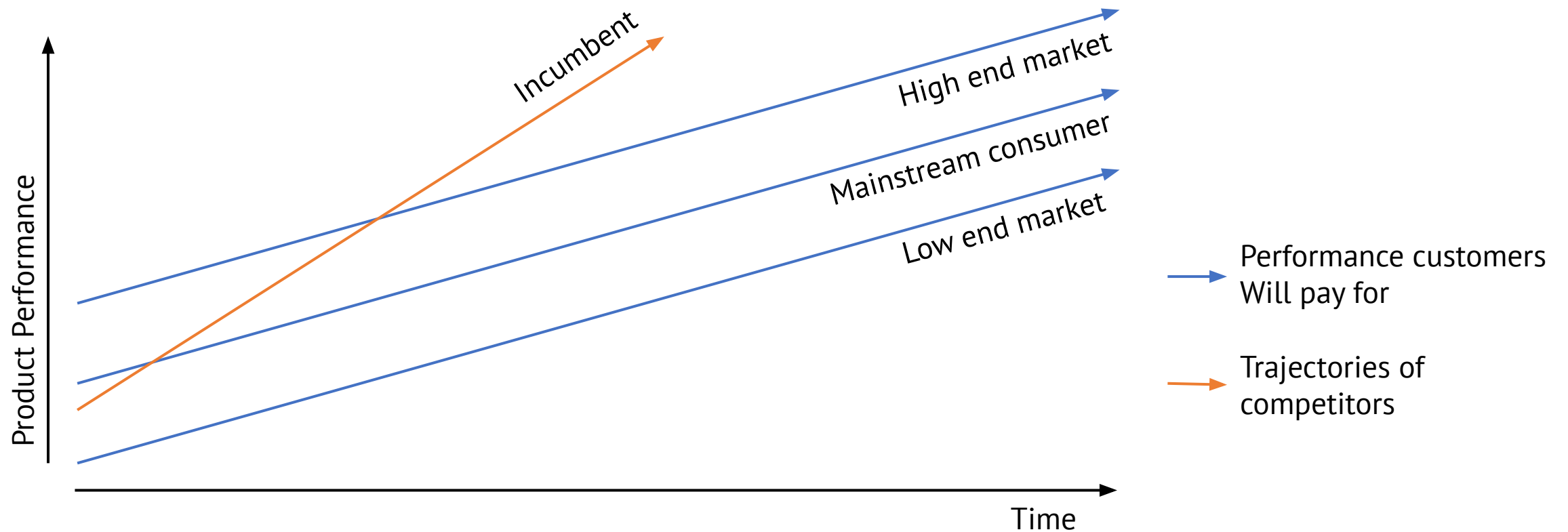
Final report



## Practice case collection

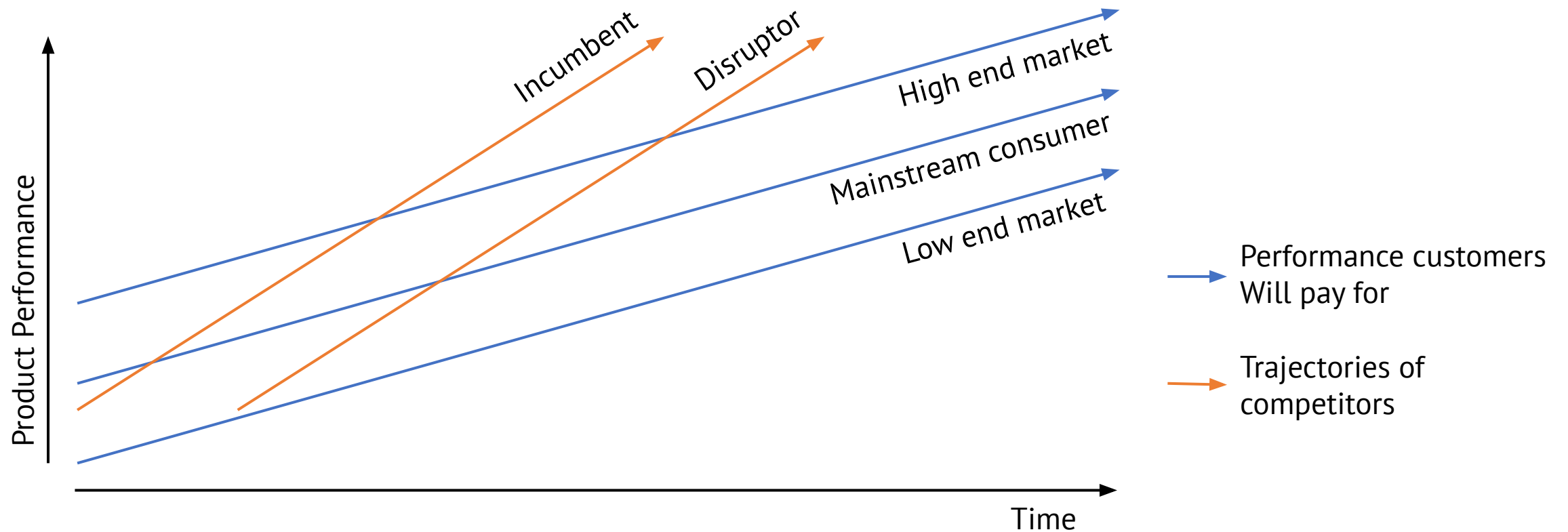


## Disruptive Innovation



Source: Christensen et al. 2015 What Is Disruptive Innovation? Harvard Business Review

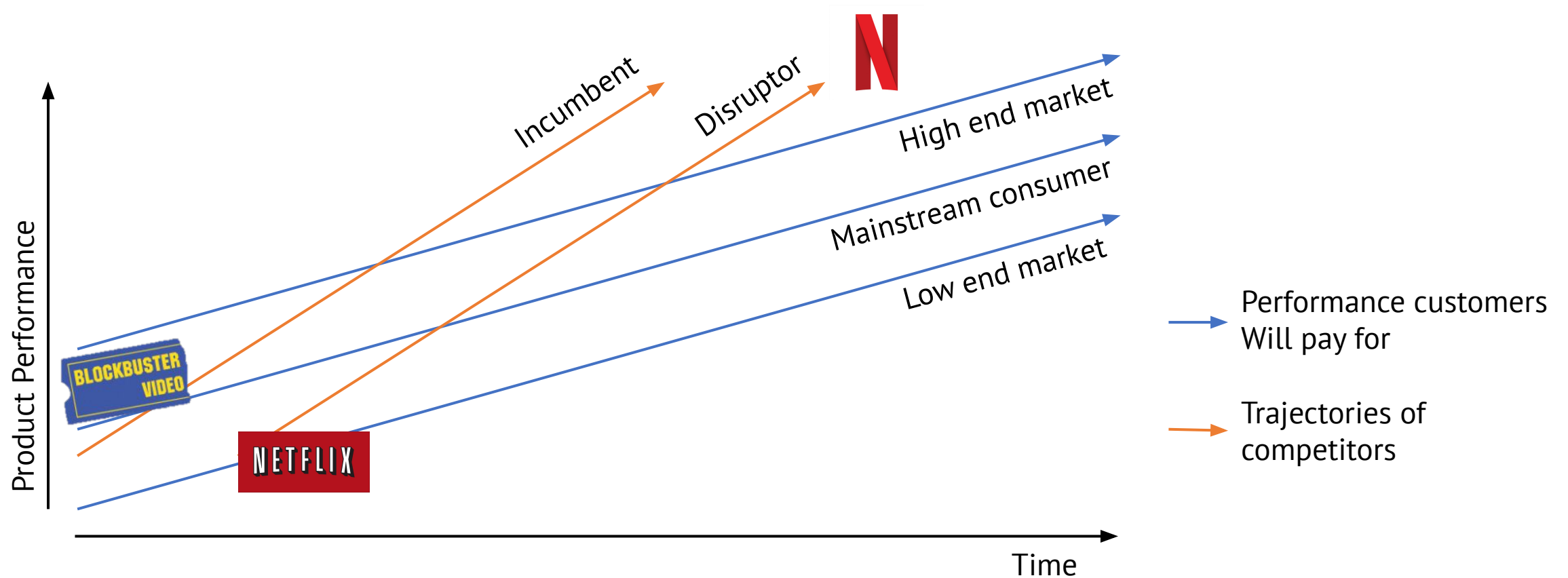
# Disruptive Innovation



Source: Christensen et al. 2015 What Is Disruptive Innovation? Harvard Business Review



## Disruptive Innovation



Source: Christensen et al. 2015 What Is Disruptive Innovation? Harvard Business Review

## Exemplary Case: Disruption

Case: Transcription services

AI Project: Transcription of audio- and video records

Description

- Creation of a transcript with the AI application, together with a subsequent correction by a freelancer, takes longer than if a freelancer transcribes manually.
- Firm offers automatic transcription to customers who place less value on quality.



Photo: @breeandstephen

## Exemplary Case: Opposition

Case: international audit, tax and advisory firm

Project goal: automating account allocation, developing internal competences

### Description

- Specific but laborious job of mapping accounts on target structure (e.g. according to German commercial code) is mostly automated, employee only controls mapping - critical cases are flagged by the system.
- Account mapping was a unpopular task that deterred interns.



Photo: Sharon McCutcheon



## Exemplary Case: Automation

Case: Telecommunications company

Project goal: Customer service chatbot

### Description

- Chatbot system is managing some repetitive customer requests.
- More and skilled work is also emerging in the context of scripting chatbot dialogues.

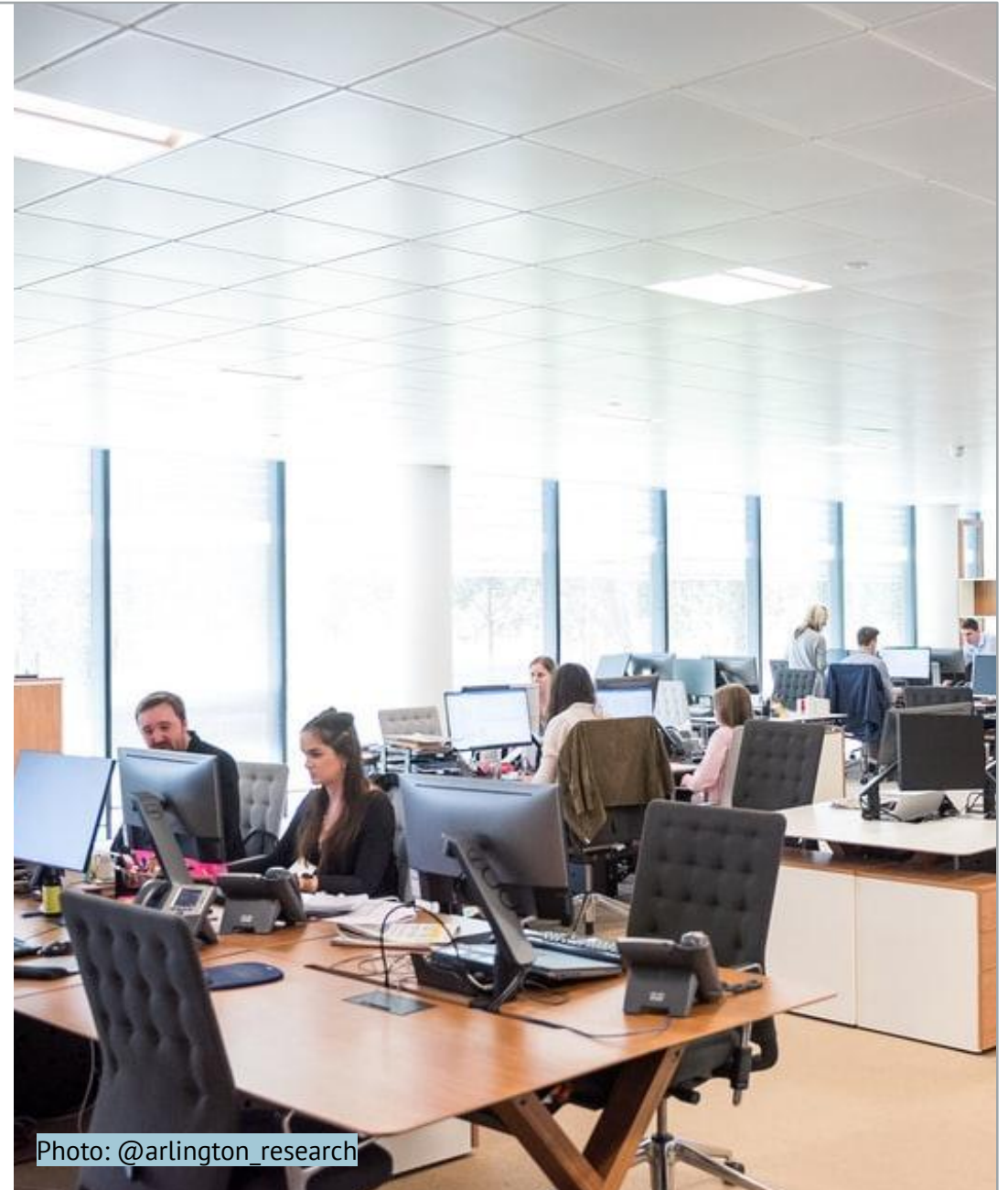


Photo: @arlington\_research

## ~~Disruption?~~ Preliminary findings

- AI used for both automation & augmentation of human work
  - automation associated with a modularization of work
  - shift from repetitive tasks to exception handling and controlling - perceived as relief
- Emergence of
  - new tasks and roles at different hierarchical levels with new skill requirements
  - agile and interdisciplinary teams that collaborate across functional boundaries
- Employment
  - research participants perceive (thus far) no substantial impact on employment
  - dealing with concerns regarding job losses important element of change management

## Perspective

- The Chair Project (Four Classics)  
Philipp Schmitt  
<https://philippschmitt.com/work/chair>
- Homo Deus: A History of Tomorrow by Yuval Noah Harari
- Black mirror “Metalhead” (Season 4, Episode 5)
- Prediction Machines: The Simple Economics of Artificial Intelligence by Ajay Agrawal, Joshua Gans, Avi Goldfarb



Image: <https://philippschmitt.com/work/chair>





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