Outline

I. What Makes Workers Productive?
II. AI and Personnel Economists: Re-shaping the Internal Strategy of the Firm
   1. Hiring and Other Processes
   2. Teams and Empowerment
   3. Job Design: Stars and Guardians
   4. Managers Matter
   5. Pay
III. Conclusion: The Big Picture
I. What Makes Workers Productive?
Culture: The HR System of Interlocking HR “Levers”
II. AI and Personnel Economists: Re-shaping the Internal Strategy of the Firm

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1. Hiring and Promoting
Hiring AI Tools: Screening

Hey Daniel, do you have managerial experience?

Yes, about five years. What's the minimum for this role?

That's great! The role requires about two years so you definitely meet the qualification.
Hiring AI Tools: Hiring Process for Job Match
Hiring AI Tools: Reducing Discriminatory Unconscious Bias
Hiring: Models and AI Hiring Tools

AI Hiring Tools Increase the Productivity of the HR group

AI Hiring Tools Elevate Worker Productivity through:

• Improved Screening – less Signaling through Educational Institution
• Better Person-Firm Job-specific Match
• Reduced Discrimination
• Greater Team Heterogeneity
2. Teams and Empowerment

Graduate School of Business, Stanford
Teamwork and Empowerment

Team members A, B, C work together in a complementary fashion.

Now, AI Algorithms will be a team member.
This is very different from computers of the past—computerization was enabling but not contributing.
Teamwork and Empowerment

Job Authority Structure and Errors

- False Negative Error: Reject a project, given that it is good
- True Positive Error: Accept a project, given that it is bad

Hierarchical Structure
Second Opinion Structure
Flat Structure: single decision maker
Teamwork and Empowerment
3. Job Design: Stars, Guardians, or Foot Soldiers?

**STARS**
- Big upside gains from success, low downside for failure
- “Many are called, few are chosen”

**GUARDIANS**
- Potential big downside losses
- Big penalties for failure (job loss)

**FOOT SOLDIERS**
- The average guy doing his job
A star job has big potential upside gains for effort.

A guardian job has big potential downside losses from mistakes.

Figure 2-2  Distributions of outcomes for different types of jobs.

AI and the payoffs to people in *Star jobs*

**AI as a complement to R&D**

Payoff of “Development” research shifts from the solid to the dotted line.

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Shift in payoff of Development research
AI and the payoffs to people in *Guardian* jobs

AI shifts distribution to fewer expected huge losses

AI based pilots
Empowerment: Models and AI Tools

“Guardians” have control through AI to prevent downside losses.

Stars” have greater predictive capabilities to avoid false positives and have more upside gains.
4. Manager Effectiveness

Are these people productive?

Elon Musk

Michael from The Office

Mark Lipscomb

Elon Musk
Managing: Butterfly checks on your employees daily

https://vimeo.com/199290572
AI and People Analytics – Managers’ Use

**Xander** analyzes emails:
- Are you confused, optimistic, angry?
- Are you the real “boss?”
Estimating The Value of Bosses

Michael from The Office

Mark Lipscomb
The rising variance of wages across managers...

- The variance of pay will increase more as successful managers *effectively use AI and use judgment* and other personal skills
5. Pay: “What gets measured gets managed.”
AI reduces wasteful activity for managers and knowledge workers

And We Spend Too Much Time Searching

Knowledge workers spend less than 40% of the average workweek on tasks specific to their jobs.

- Reading and answering e-mail: 28%
- Searching and gathering information: 19%
- Communicating and collaborating internally: 14%
- Other: 39%

Time spent on tasks specific to the job
Weigh the performance

Relative scale

Advantages:
1. Cheaper to measure
2. Takes out the “common noise” of different concentration of top performance scores across bosses

Absolute scale

Advantages:
1. Creates precise absolute value all agree on
Weigh the performance

Relative scale

Advantages:
1. Cheaper to measure
2. Takes out the “common noise” of different concentration of top performance scores across bosses

AI can assess / predict who is good at judgement, e.g.:
Measure project outcomes
Managerial quality

Absolute scale
What has AI done for measurement and pay?

The big changes:

1. Simple easily measured tasks are gone.

2. AI can assess / predict who is good at judgement, e.g.:
   a. Measure project outcomes
   b. Managerial quality
III. Conclusion: The Big Picture
What makes workers productive?

Will AI make workers more productive? Will personnel practices change – so as to increase the speed of adoption or the returns to adoption of AI?
What do managers say now? Survey evidence on future adoption

Reasons for adopting AI
Why is your organization interested in AI?

- AI will allow us to obtain or sustain a competitive advantage: 84%
- AI will allow us to move into new businesses: 75%
- New organizations using AI will enter our market: 75%
- Incumbent competitors will use AI: 69%
- Pressure to reduce costs will require us to use AI: 63%
- Suppliers will offer AI-driven products and services: 61%
- Customers will ask for AI-driven offerings: 59%

Percentage of respondents who somewhat or strongly agree with each statement.
Culture: The HR System of Interlocking HR “Levers”
How fast will AI get adopted?

New Pressure - Increasing Speed of Adoption
How fast will AI get adopted?
The Destination: Machu Pichu
Inducing workers (and managers) to embrace change

What’s In it For Me?
(WIFM)
Thank You