

AI, HR & Organizational Design

craig larman

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AI: a passion since late 1970s

paid full-time AI developer starting 1986

*graduate CS thesis:
2nd-generation AI automatically
learned from a 1st-generation AI ...*

Learning From Knowledge Systems

by
Craig Larman

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not current predictions

“2027”

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criticizing/concluding based on
current 1.0 AI tools is premature

EXPLOSIVE GROWTH!



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Oct 2024: **xAI Colossus**
World's largest opened...
and now to **double** in size



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Demo

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Routine (Single-Specialist) **Expertise**

- > product managers
- > business analysts
- > artists & video/film creators
- > UI/UX designers
- > data scientists
- > testers
- > coders (front end, back end, ...)
- > DB designers
- > architects

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HR & Org
Design Impacts

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Als are *finally* doing
“knowledge worker”
routine expertise

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Automation Supplanting Humans

1. routine math (1940s)
2. routine movement (1940s)
3. routine info workflows (1950s)
4. **(next) routine expertise** (2020s)
>with powerful *task-specific* Als

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“Als won’t replace
our narrow
single-specialist
routine jobs”

(says the wishful thinker)

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“I will simply work more
efficiently in my single-
speciality, with AI.”

(says the wishful thinker)

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really? ...

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story: Gojko Adjic

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story: Cursor vs MS
Co-pilot

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18 minutes!

Web Summit Rio 2023: Building an app in 18 minutes with GitHub Copilot X

GitHub CEO Thomas Dohmke demonstrated the power of GitHub Copilot X live on stage.

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CUSTOM WEBSITES GENERATED BY A.I.

In 30 Seconds

Get a custom AI-built digital presence with Chat GPT and gain access to our

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for entire system... in *MINUTES*

HOW TO GUIDE

I Used GPT-4 to Raise My Test Coverage to 100% in Minutes

It's really easy.

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Task	Traditional Human	GLAD dev	GLAD-Trad Ratio	rounded
complex art graphic	2 pd	5 seconds	1:11520	10,000
video	10 pd	2 minutes	1:2400	2,000
design & code website	50 pd	1 minute	1:24000	20,000
0->100% coverage	100 pd	1 pd	1:100	100
mobile app	100 pd	18 minutes	1:2666	3,000

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these are stories of
baby beta-products

imagine in “2027”

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BIG Idea

AI tools will allow one to
produce **10X-1000X**
faster, not just “20%”

(with much less effort,
errors, & prior expertise)

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imagine a single-specialist UI/
DB designer that can now do

300 person-days of output

...in 3 or 30 person-days

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300 person-days of output

->

3 or 30 person-days

what will the “UI/DB
designer” do for the
remaining “297” days?

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what will the “UI/DB designer” do for the remaining “297” days?

perhaps they will create LOTS MORE UIs & DBs?

NO, because there is no customer demand

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what will the “UI/DB designer” do for the remaining “297” days?

perhaps fire all but 1 designer, who “does all the design”?

1. **UNLIKELY**, because they still have “200” days free
2. **UNLIKELY**, because other developers can use these tools to quickly learn & create designs
3. **UNLIKELY**, because many companies will strive to avoid massive layouts
4. **UNLIKELY**, because it would create unnecessary delays and weak feedback loops

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BIG Idea

AI makes it *much* easier to **learn** new skills & tools

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if a “UI/DB Designer” can
much more easily/quickly
learn & create...

automated testing
front-end dev
etc

then...

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BIG Idea

1. primary
 2. secondary
 3. tertiary
- skills learning

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if “DB Designer” does DB tasks for
“10” days per year, and learns/does UI
design, programming, testing, etc for
“290” days...

why do they have the
single-specialist job title
“DB Designer”?

why is the career path
“DBD-1, DBD-2, ...”?

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BIG Idea

structural change:
formally in HR titles:
broad job title, with career
path **multi-learning**

e.g. **Product Developer**

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GLAD developer

**Generative-AI &
LLM-Assisted
Development**

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Then, Not a Team of *Single-Specialists*



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A Team of ML Humans, with AI assistants

multilearning GLAD dev
multilearning GLAD dev
multilearning GLAD dev
multilearning GLAD dev
multilearning GLAD dev

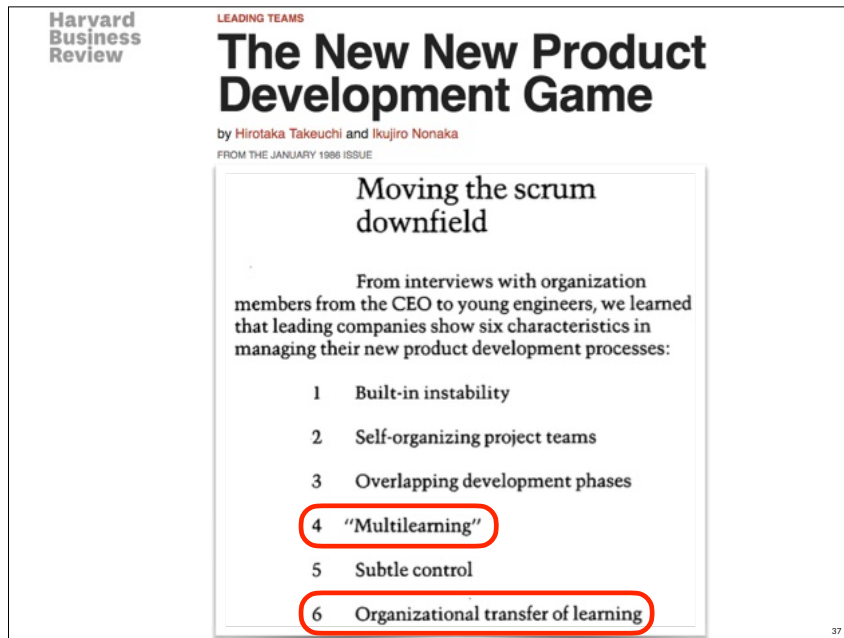
35

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***multilearning developer is
NOT a new idea...***

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and a few years later...

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A Team of ML PDs, with AI Agents

multilearning GLAD dev
AI agent 1
multilearning GLAD dev
AI agent 2
multilearning GLAD dev
AI agent 3

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and a few years later...

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A Team of ML PDs, with AI Agents

multilearning GLAD dev
AI agents 1... 10

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“This won’t change
manager roles”

(says the wishful thinker)

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if there is no “DB Design”
group (since no “DB
Designers”), is there a...

DB Design manager?

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**“here’s our
official job
categories in our
modern high
tech company
with great HR &
leadership:**

**business analyst
ui designer
front-end dev
db designer
...”**



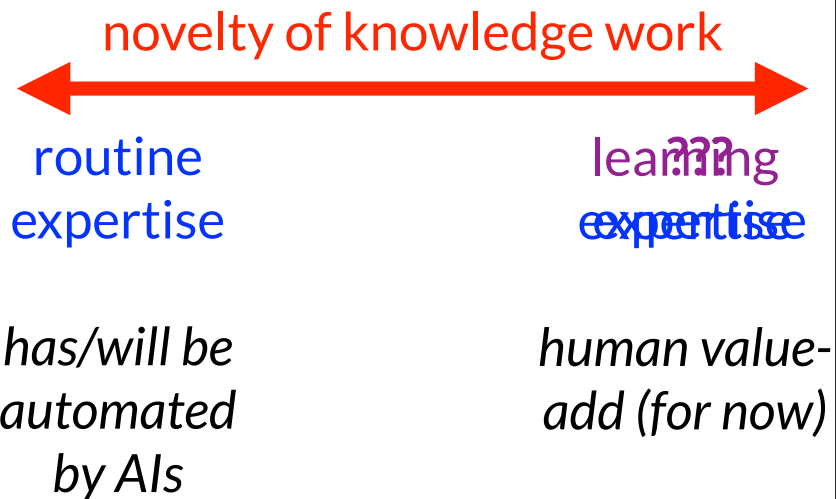
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Future HR & Org Design

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future value-add for **humans**?

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MAJOR AI Paper: Towards *Learning/Adapting AIs*

On the Measure of Intelligence

François Chollet *
Google, Inc.
fchollet@google.com
November 5, 2019

“The intelligence
of a system
is a measure of its
skill-acquisition
[learning] efficiency”

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job skill will be
skill in multi-learning
over
skill in single-doing

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what org system is already
designed for this?

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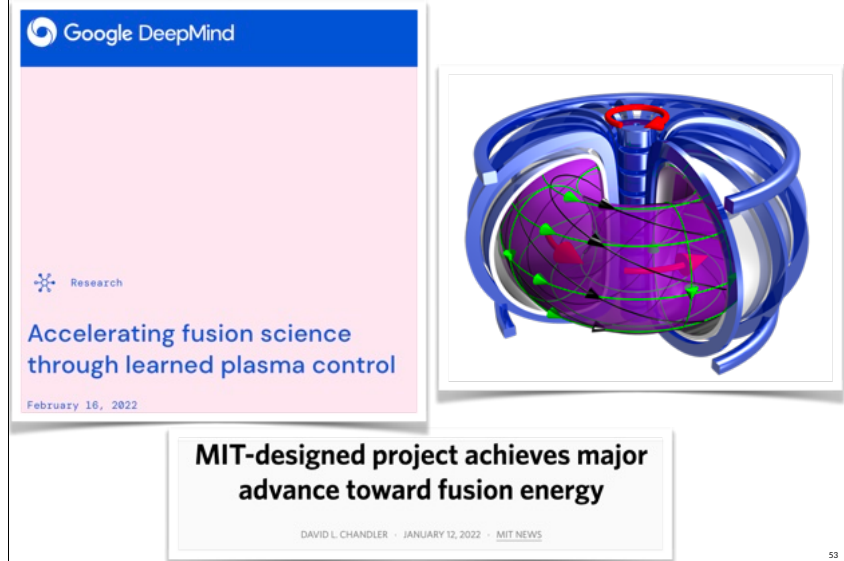
LeSS
More with LeSS

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Social Impacts

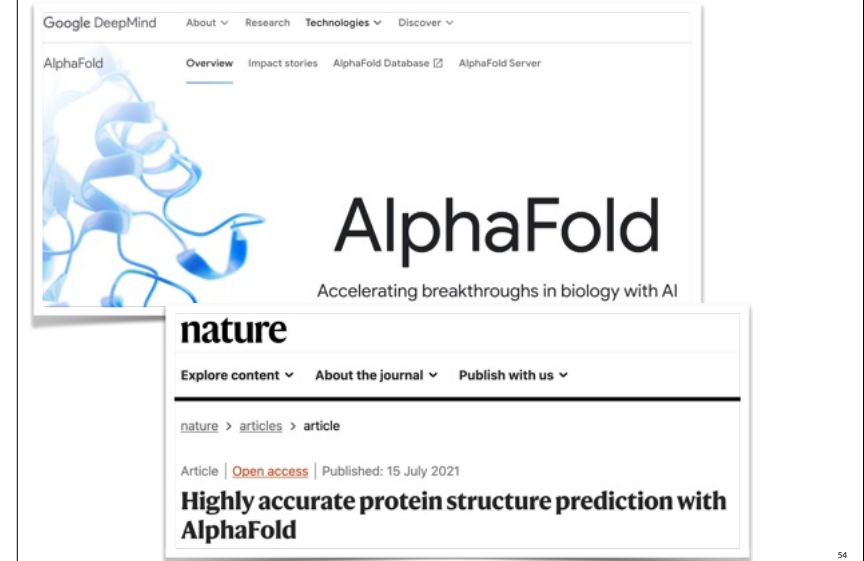
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Nuclear Fusion



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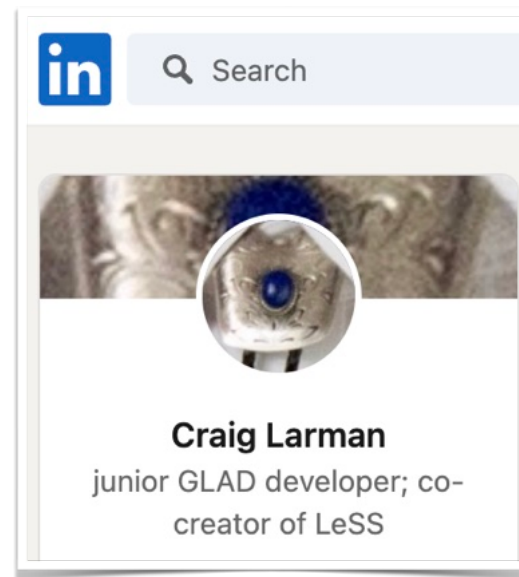
Accelerated Drug Discovery



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Close

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welcome to
connect with me!