

Breakout V: How to Avoid Getting Catfished by AI

#A0BA23

Diego Represas

Able

How to Avoid Getting Catfished by AI

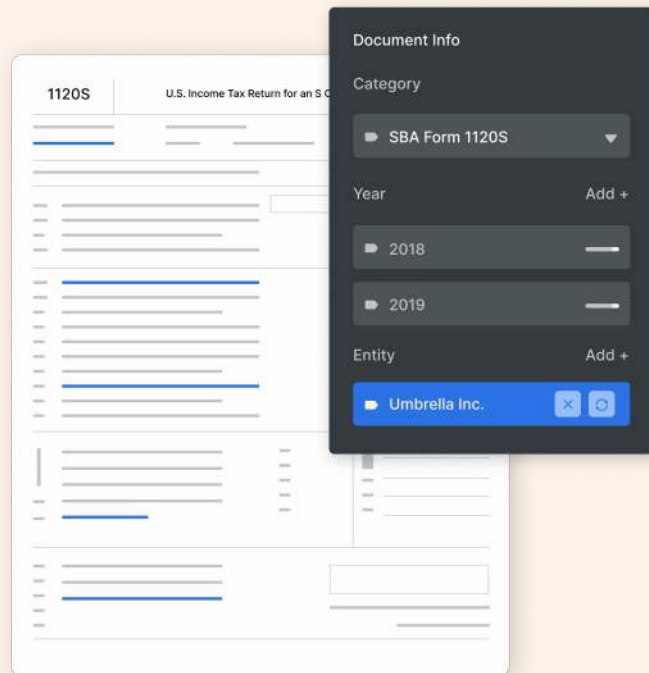
Expertise: Applying AI to finance problems

Diego Represas

- Studied CS/AI at Stanford
- AI lead at Digit.co
- Co-founded Able in 2020



- Able uses AI to streamline paperwork
- Commercial lenders use our platform to complete loan packages quickly and easily
- Our AI lead has over 2100 citations on related research papers



“AI can do what?!”

DALL-E



“Darth Vader dollar”



“ATM on Mars”



“Tech guy gives AI talk”

ChatGPT

“Write a credit memo justifying why Marriot should be given a \$100M loan”

Excerpt from AI output:

... Marriott's financials demonstrate its ability to generate strong cash flow and maintain a healthy balance sheet. The company has consistently reported positive net income and operating cash flow, with a current ratio of 1.6 and a debt-to-equity ratio of 0.5. This indicates that Marriott has a solid financial foundation and is well-positioned to repay the loan.

Additionally, Marriott's brand recognition and reputation for excellence in the hospitality industry is unparalleled. The company operates over 7,500 properties in 131 countries and territories, making it....

Growing list of use cases

1. Write email
2. Draft plans
3. Automate workflows
4. Develop code
5. Manage data
6. ...

**Nearly a Third of White-Collar Workers Have
Tried ChatGPT or Other AI Programs,
According to a New Survey**

How generative AI will supercharge productivity

Generative tech won't eliminate many jobs; it will simply evolve them.

**From marketers to coders, professionals are
turning to ChatGPT, survey shows**

AI = Workforce Multiplier

But some will
try to sell you
garbage AI.

How will you
know what's
real and what
isn't?

How AI Works

The vast majority of recent AI progress is centered around statistical learning.

1. Feed the machine very large amounts of data, ideally annotated by humans.
2. The machine learns probability mappings of *priors* against an *outcome*.
3. The machine incidentally builds an internal "model" of the world while at it.

Language model example

I	have	a	pen	.
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I	have	an	_____
			apple
			pen
			red
			hello

Three ideas
you need to
understand:

1. Training data
2. Task variance
3. Error tolerance

Training Data

Ask: Does this project have *proprietary* access to large, carefully indexed datasets?

Be Skeptical

Smaller, noisy, poorly annotated datasets

Algorithms are easy to replicate. Datasets are not. As the saying goes: garbage in, garbage out.

Be Open

Large, validated, annotated datasets

Data should be indexed and organized, with important information annotated by experts. Ideally, datasets are also proprietary - no one else has access to the same data set. Use that data to build a moat.

Task Variance

Ask: What specific task will this AI perform? Will future iterations look the same?

Be Skeptical

"Our software will let you predict portfolio performance."

Remember: the AI is simply pattern matching. Lots of patterns get broken, especially in the future.

Be Open

"Our AI lets your team perform this common task in a tenth of the time."

Technology is good at automation. AI is good at learning. Put the two together and you're likely to see clear benefits for the business.

Error Tolerance

Ask: Does the system excel if it's only *mostly* right?

Be Skeptical

"The model needs to be accurate 99%+ of the time."

AI isn't magic. Extra "9"s of accuracy are incredibly expensive.

Be Open

"The product will deliver high value even if it's only 80% accurate."

It's much easier to build systems that only need to give people a head start.

Human-in-the-Loop

Human-in-the-loop (HITL) training is great for FIs.

With HITL training, people give the machine feedback to help it learn. This approach is also called reinforcement training.

Benefits:

- System is tolerant to error
- Catching errors helps the system learn
- Over time, FIs accrue a large training data set, further improving system

Example:

- A borrower uploads a document during the application process
- An AI reads the document and believes the document is a P&L for an entity called Acme, Inc. for 2021.
- At the bank, a loan coordinator compares reviews the doc and confirms or corrects the AI's choices.

Build Versus Buy

What does it take to build an AI system?

- + Massive upfront investment
- + Dozens of highly paid professionals
- + Years to build and train the AI
- + Large quantities of high quality data
- + Ongoing investment in training

	Build	Buy
Investment	Huge	Small
Roll out	Years away	Immediate
Value increase	Your usage	Industry usage
Advantage	Proprietary	All users

Conclusion

- AI has become incredibly useful
- Use cases are compelling
- Potential to be a workforce multiplier
- At its core, AI is pattern matching
- Skepticism is healthy

	Skeptical	Open
Training data	Small Noisy Poorly annotated	Large Validated Annotated
Task variance	High variance Changing environment	Low variance Consistent environment
Error tolerance	Needs high accuracy	Thrives when mostly accurate

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