Strata+ Hadoop WORLD

PRESENTED BY

O'REILLY cloudera

Making Business Model Innovation More of a (Data) Science

Jerry Overton

Data Scientist, Distinguished Engineer

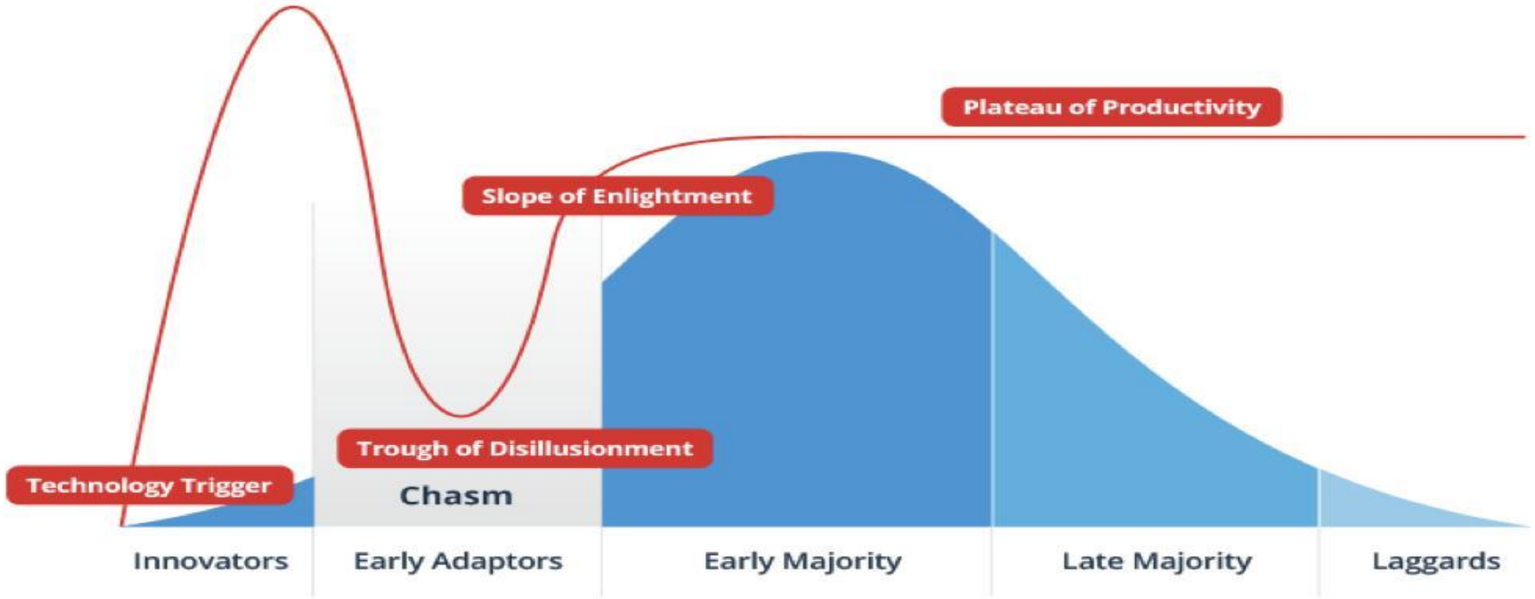
CSC

bit.ly/CSC-Strata

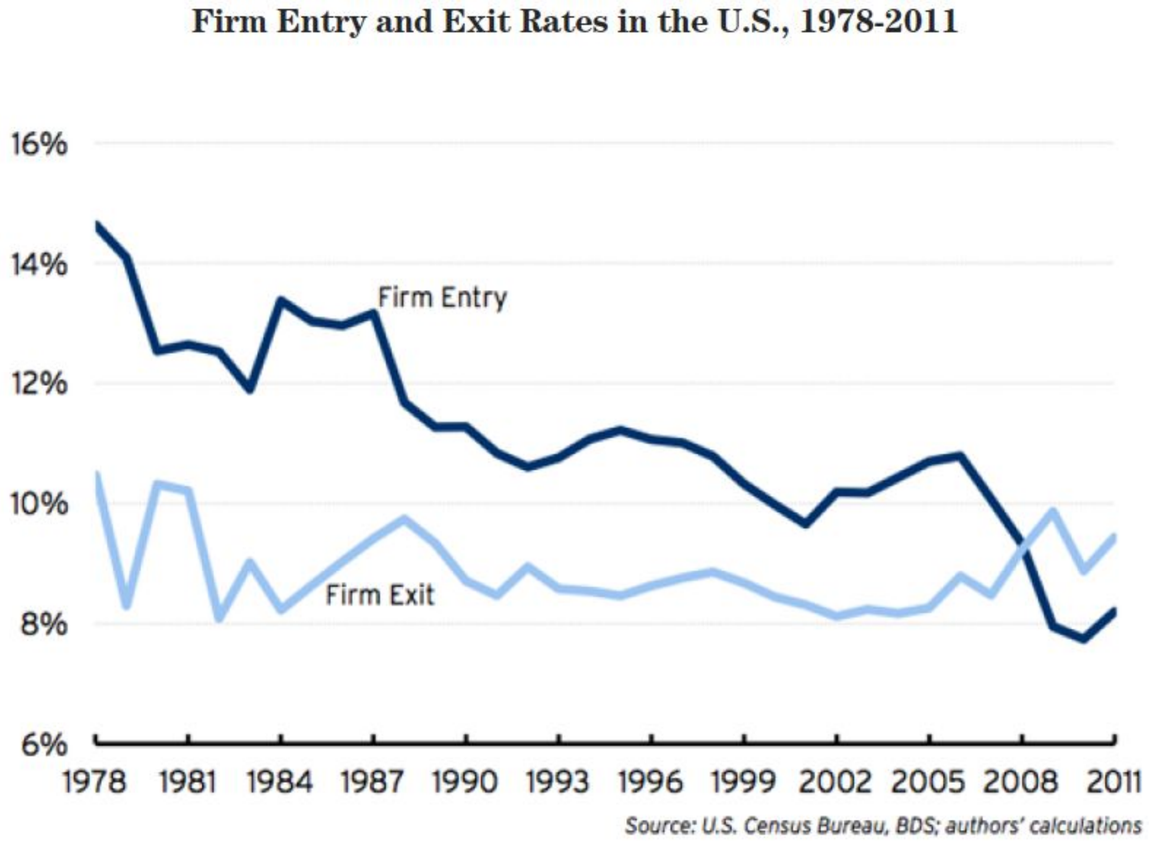
strataconf.com

#StrataHadoop

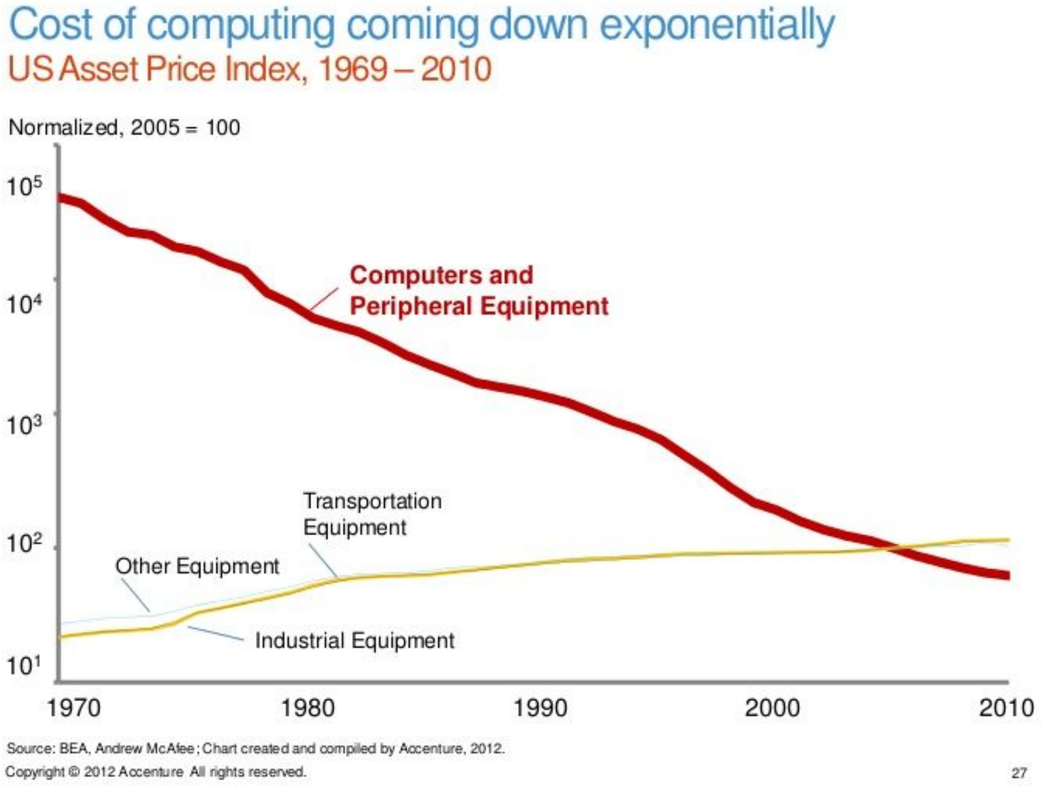
Innovation:
new stuff with enduring value.



Treating innovation as an art is not working.



We need a new innovation engine and better fuel.



The solution: computer simulation.

Strata+ Hadoop WORLD

PRESENTED BY

O'REILLY cloudera

strataconf.com

#StrataHadoop

Innovation is actually a scientific problem

We have to change the way we think of risk.

Step 1: Replace retrospective models.

Step 2: Build prescriptive models.

Rv(Co) = Rv (Cs (Vp (Kp (Co))))

Operational Efficiency:
Vp(Kp) + Rnd

What if I found a faster way to scoop the ice?

Buyer Behavior:
Cs(Vp) + Rnd

What if it gets really hot?

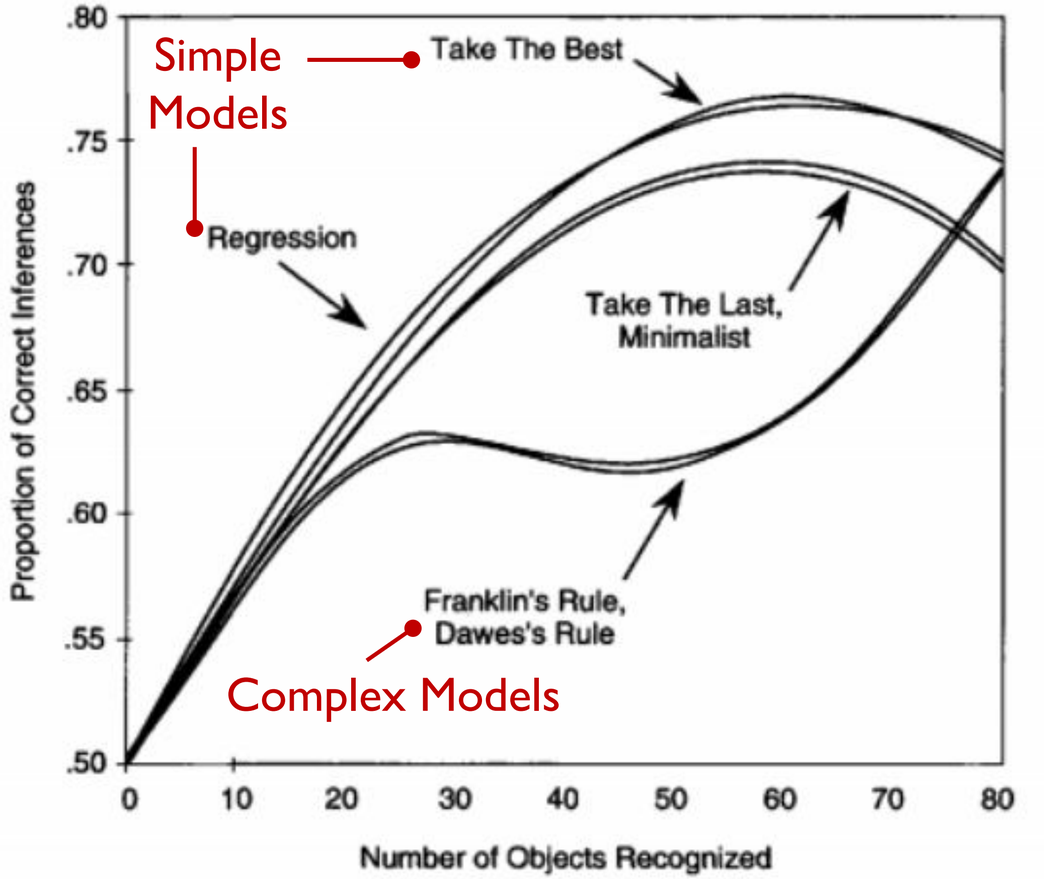
Market Potential:
Rv(Cs) + Rnd

What if customer lines get long?

Partner Efficiency:
Kp(Co) + Rnd

What if my supplier runs low on lemons?

Step 3: Believe in simple.



Strata+ Hadoop WORLD

PRESENTED BY

O'REILLY cloudera

strataconf.com

#StrataHadoop

Let's use a scientific approach to innovate at Blockbuster

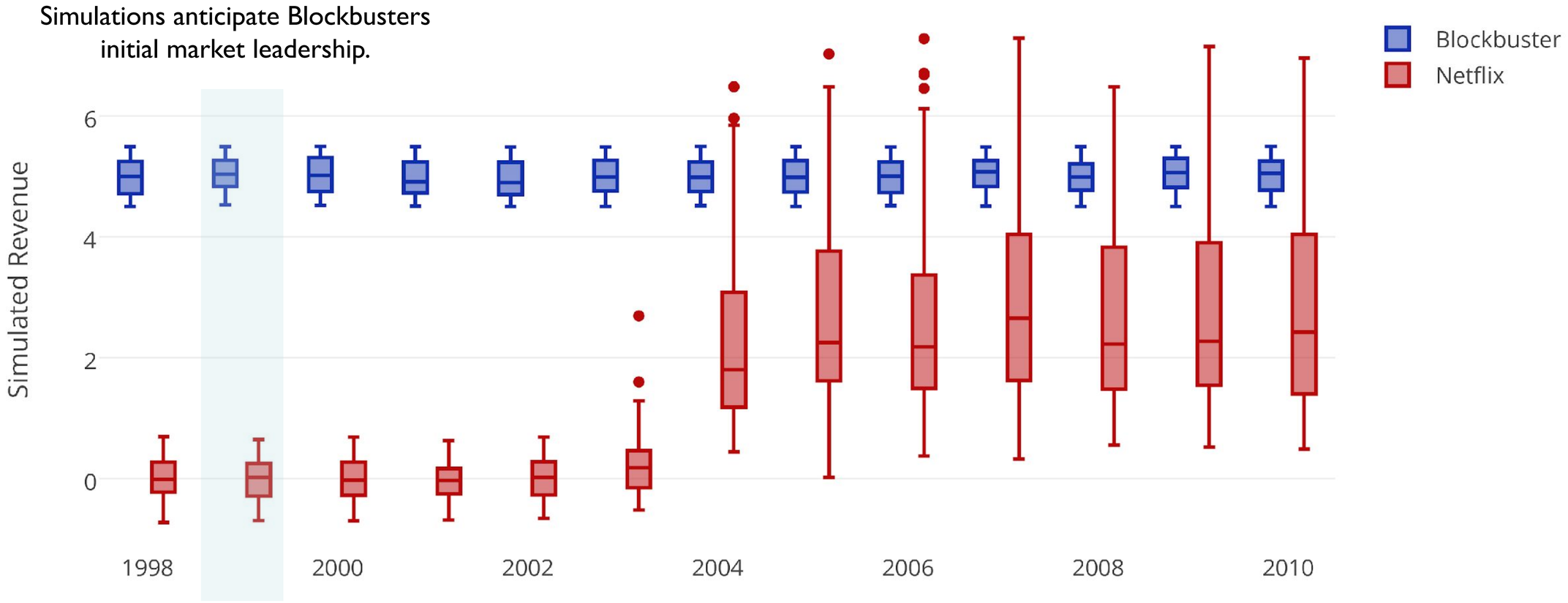
(Circa 1998)

I built a simple prescriptive model.

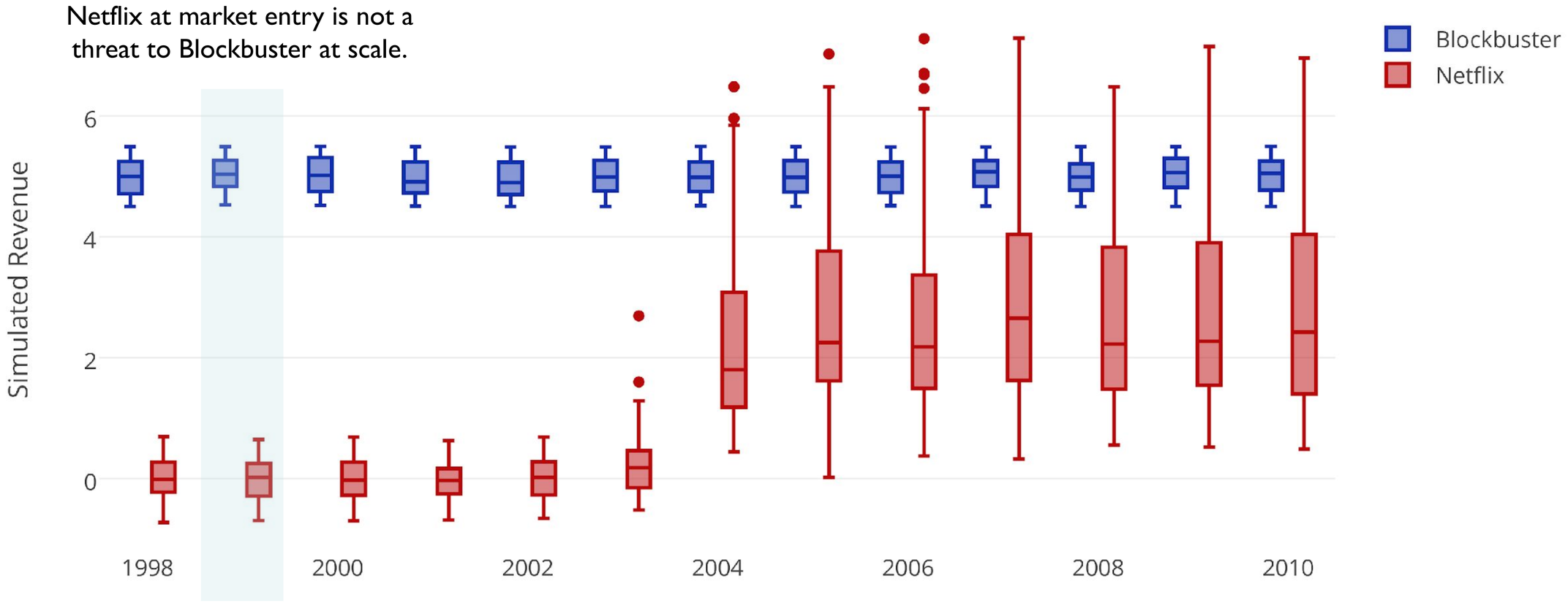
Equation	Blockbuster	Netflix
Market Potential	Large revenue gain after a critical mass of customers	Small revenue gain on each customer
Partner Efficiency	Efficiency after partner experience	Efficiency at platform deployment
Operational Efficiency	Minimum resource threshold required to become operational	Minimum resource threshold required to become operational
Buyer Behavior	Mostly new release rentals	Mostly niche rentals
Competition	Profit determines growth and future fitness	

Should we bother with video-by-mail?

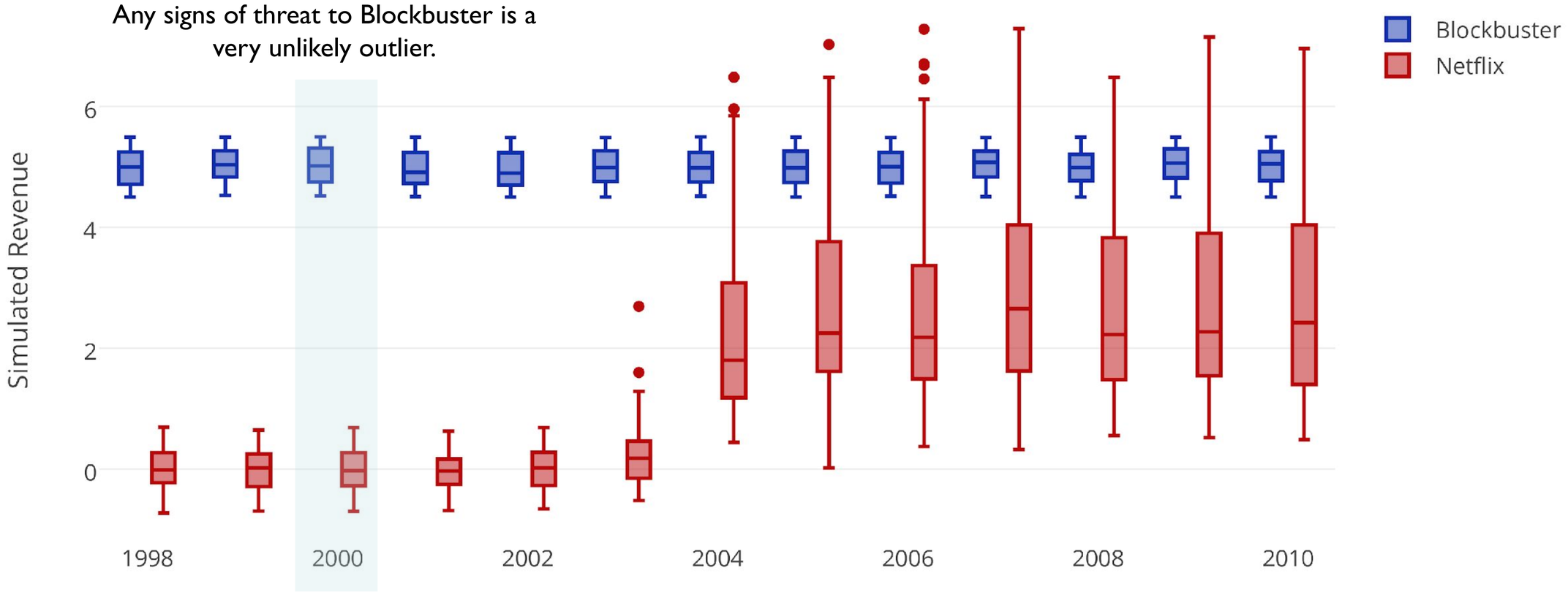
1999: Blockbuster is big.



1999: Netflix is small.

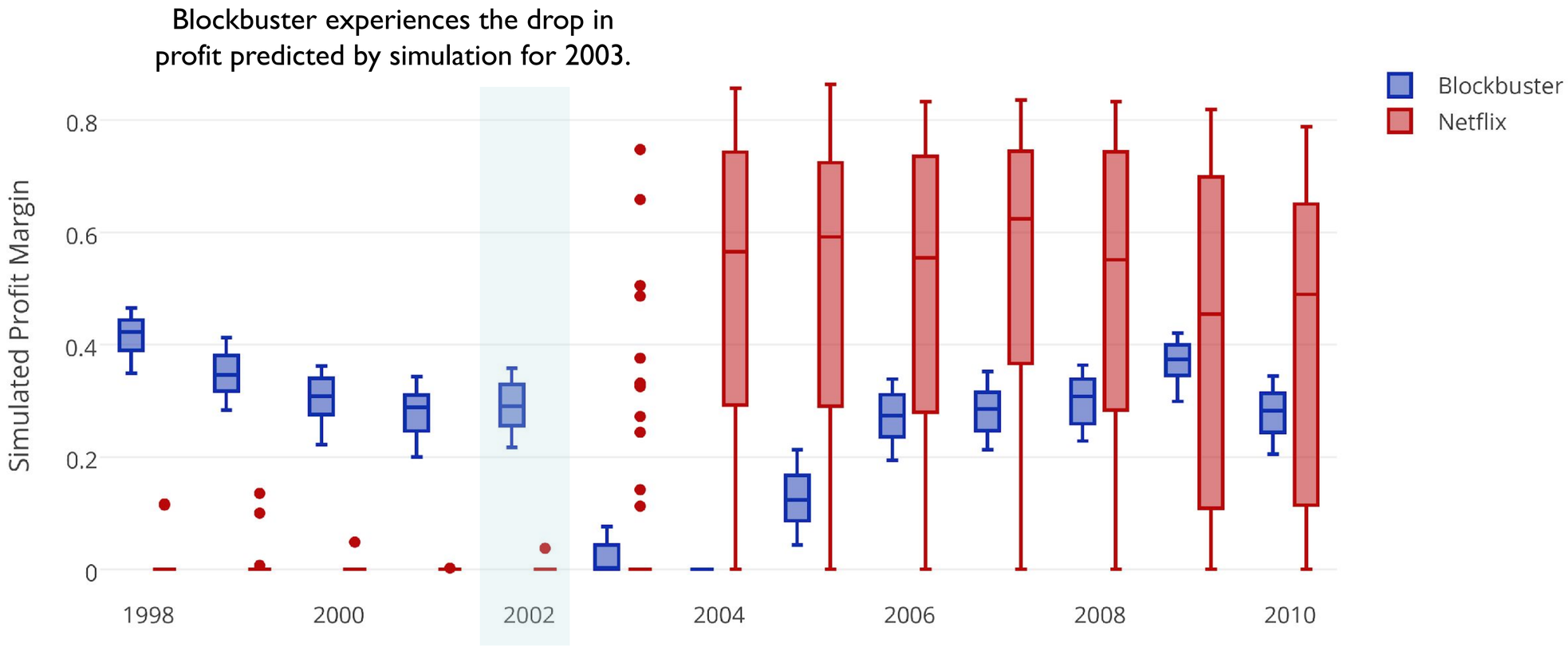


2000: Netflix is not an obvious threat.

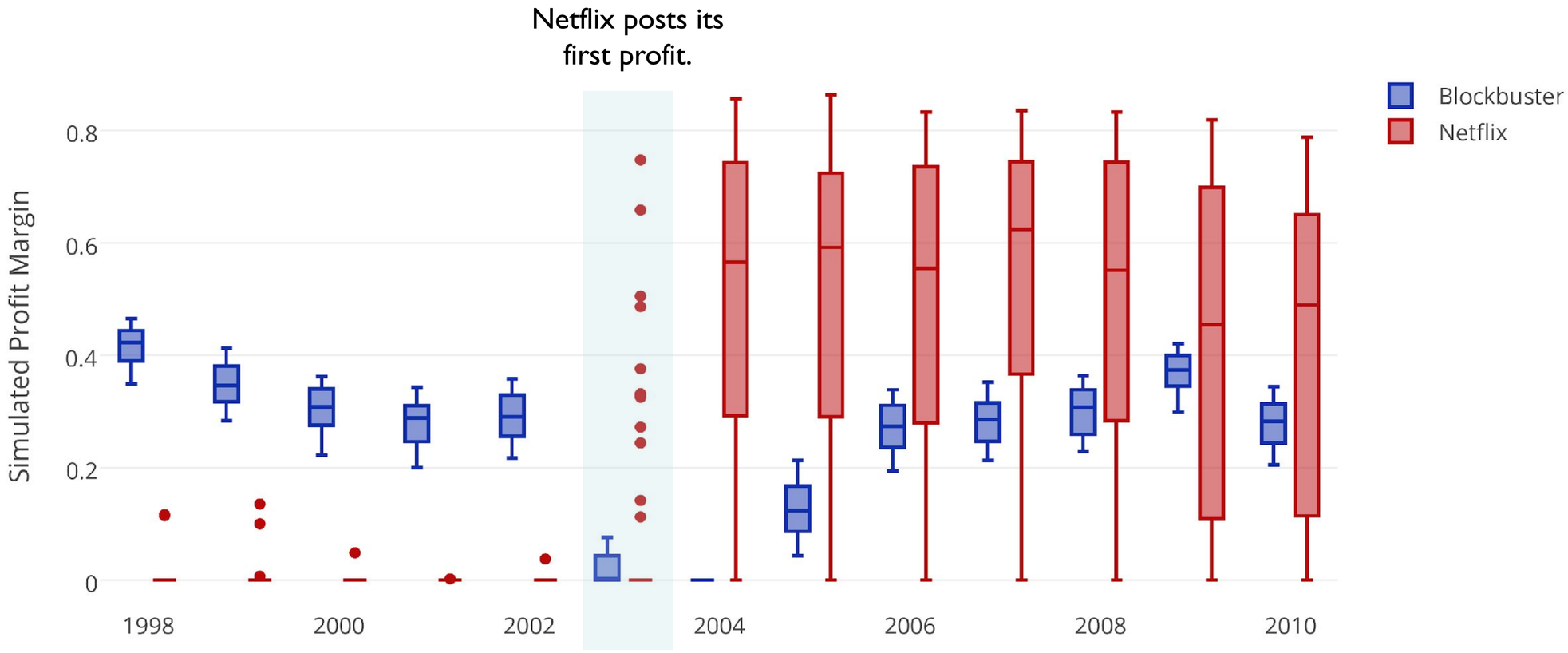


But there is risk ahead.

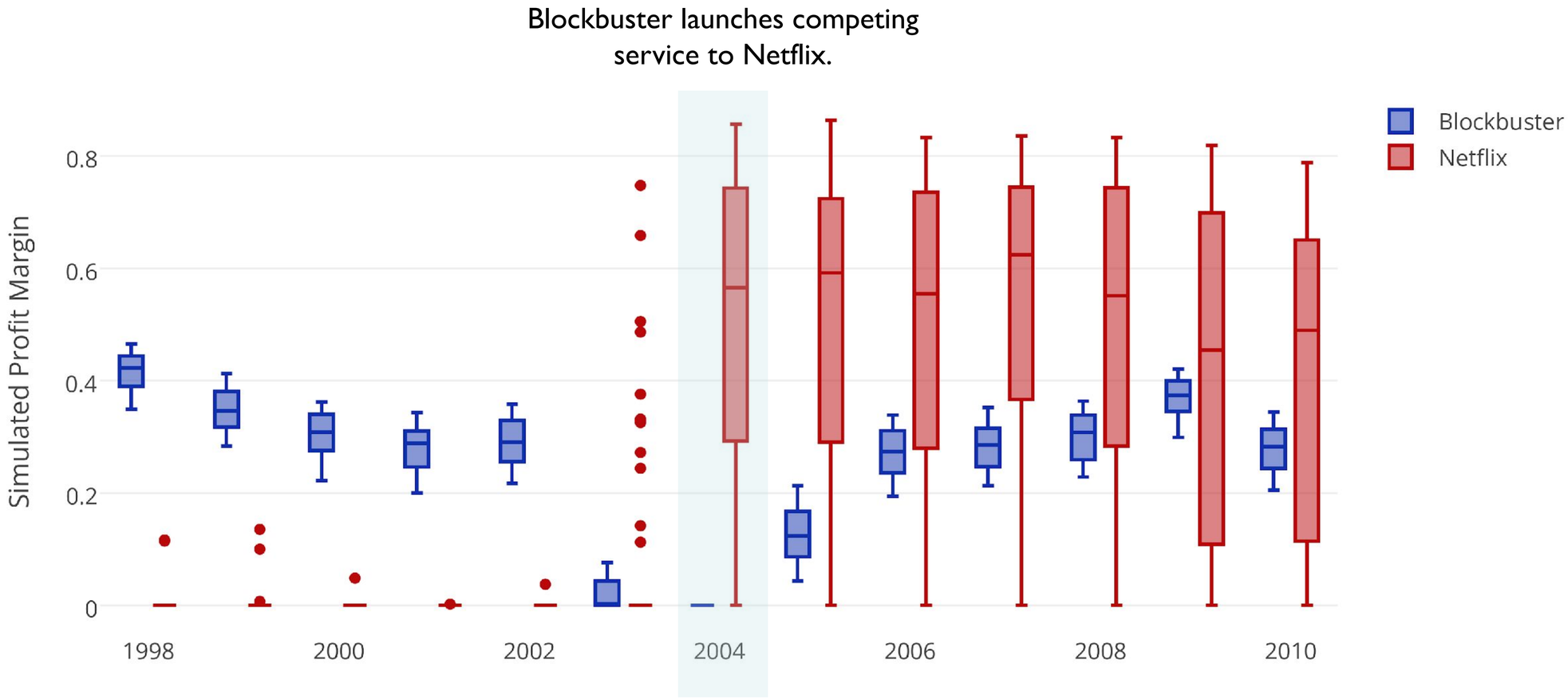
2002: Blockbuster's margins fall.



2003: Netflix threat grows.

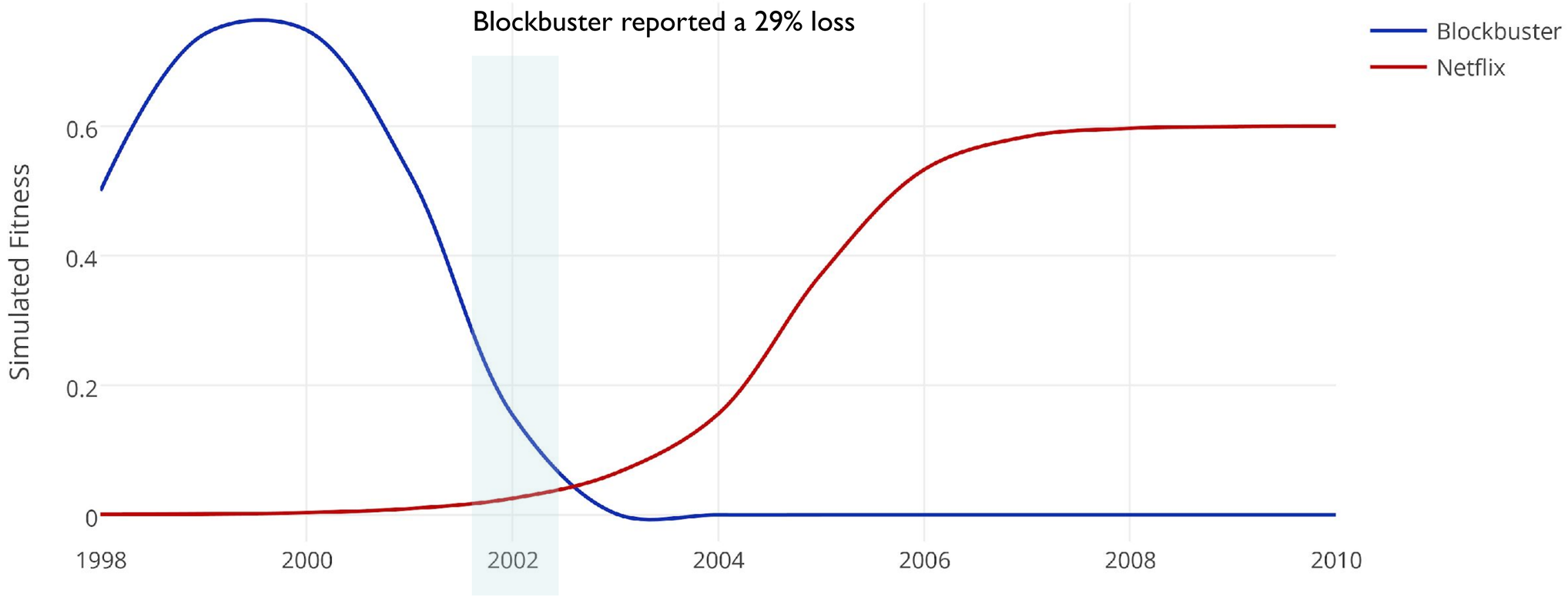


2004: The threat becomes obvious.

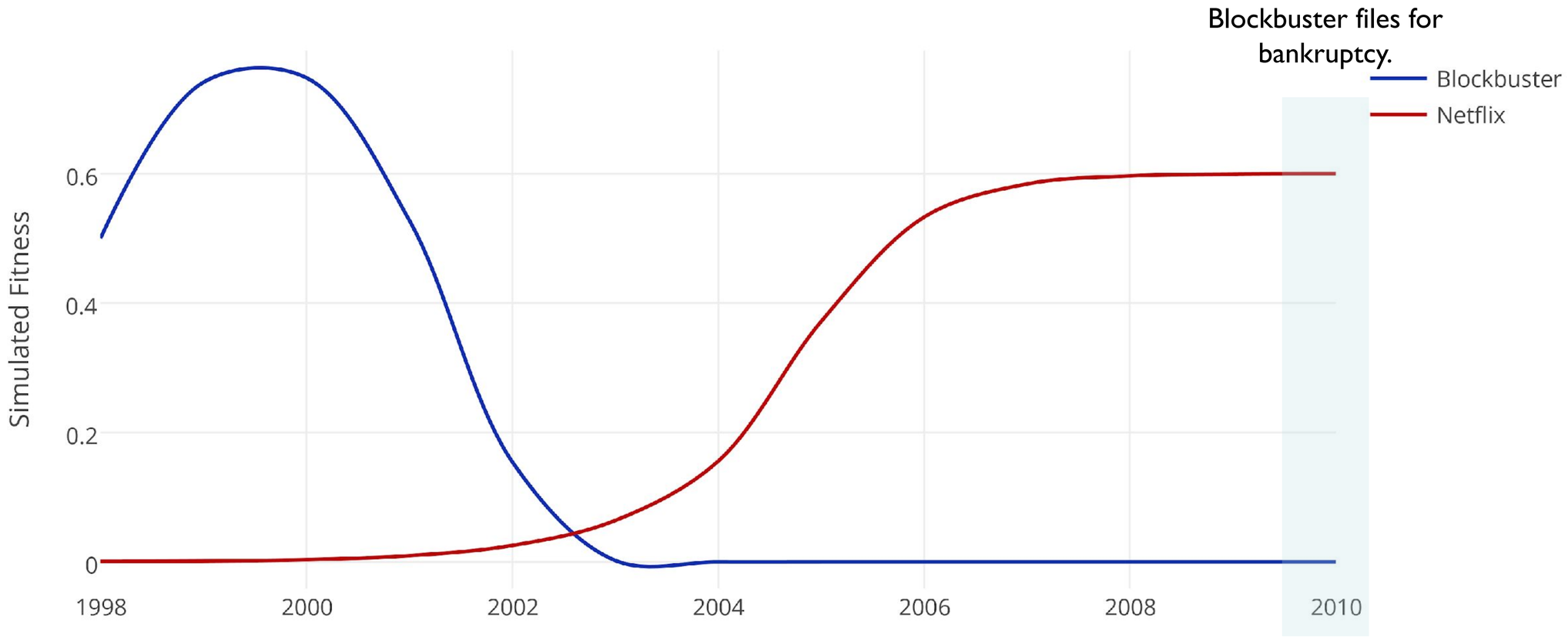


Video-by-mail threat will be fatal.

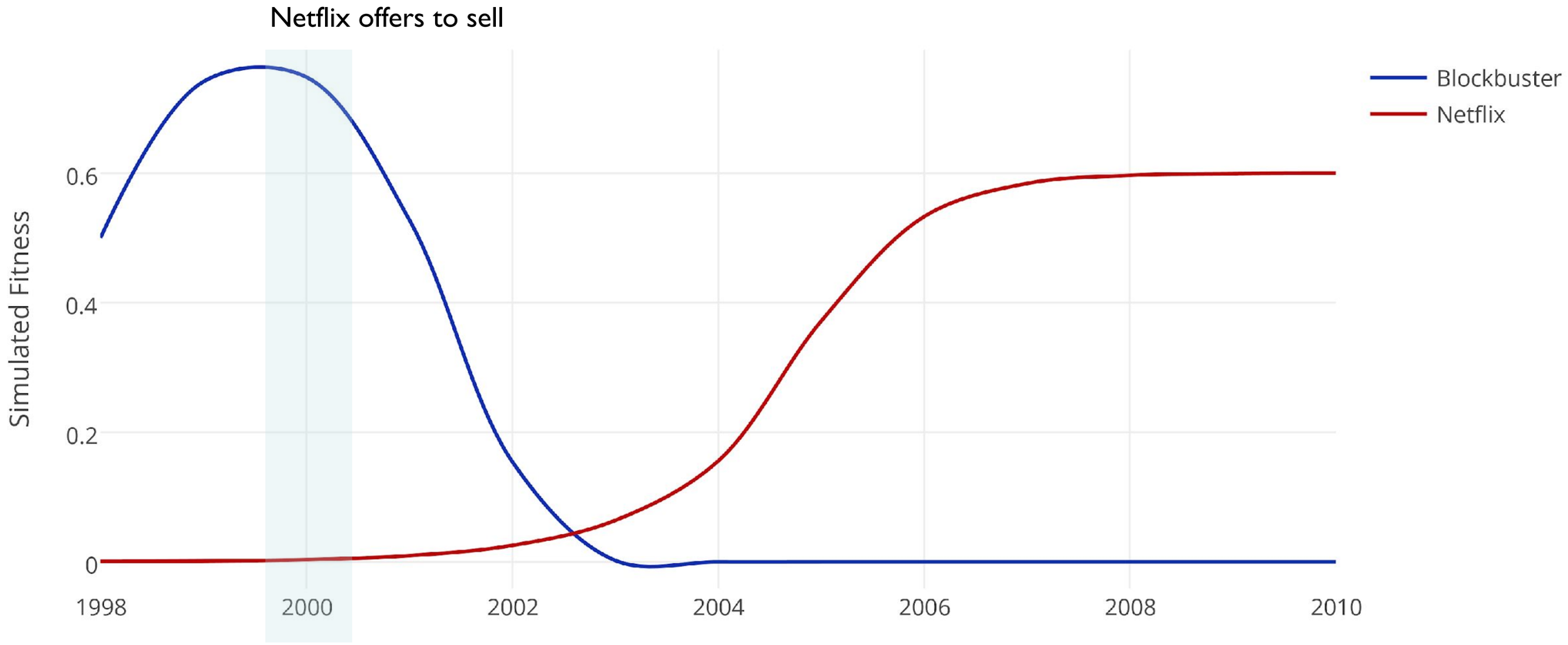
2005: Blockbuster begins reducing stores.



2010: Blockbuster is bankrupt.



We've found a meaningful innovation.



That’s business model innovation as a (data) science.

The innovation machine is hungry!

Twitter: @jerryaoverton

Email: joverton@csc.com

LinkedIn: linkedin.com/in/jerryaoverton

Blog: bit.ly/CSC-Strata