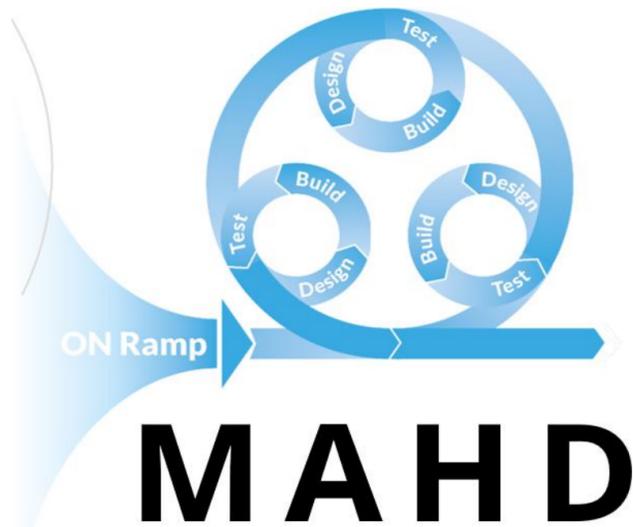


# COULD AGILE HAVE SAVED THESE PRODUCT DISASTERS?

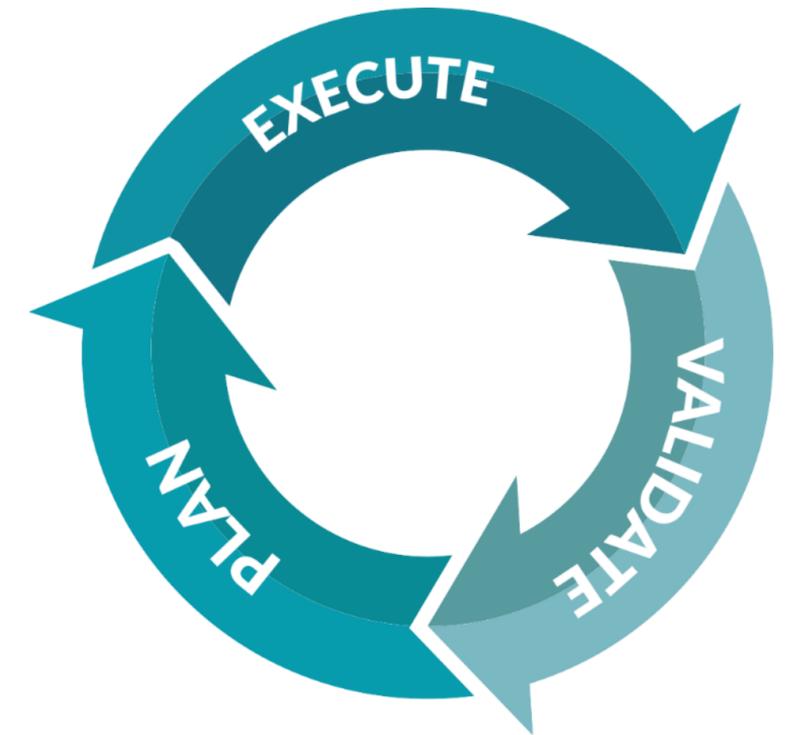


# A BRIEF INTRO TO AGILE

Agile principles and methods currently dominate software development and are quickly moving to replace (or augment) hardware development and even marketing processes. If you're not familiar with Agile principles, here is a brief overview:

1. Fundamental to Agile are rapid development and learning cycles. Develop the product incrementally using two-to-four weeks sprints and validate the effort.
2. A focus on customer value through continuously prioritized and updated requirements based on the latest market, customer and technical insights.
3. Dedicated, autonomous teams responsible for development, conflict resolution, decisions, peer success and self-improvement.

The concepts of iterative learning cycles, customer value, and autonomous teams are not new. They are at the core of Lean, Six Sigma and other processes, but Agile has made them more accessible and practical to implement.



# WHY THESE PRODUCTS?

**With the 1000's of products that launch and fail every year, why choose the ones we did that go as far back as 1981?**

1. They are well known failures that have captured the attention of everyone from the media to the Simpson's.
2. There is much information available about the company and at least some insight into what happened before, during and after the product launch.
3. Each product has a major physical component. There is little excuse for software products to fail with Agile methods, but it's less obvious with hardware-based product failures.
4. We avoided most of the .com and software company failures, as well as food failures (except New Coke, which had to be addressed).

For further thought experiments on how Agile may have saved a failed product, here is a good article on [160 failed products](#) from CB Insights.

**Note:** We realize most of the product names are registered trademarks, but we got tired of adding little circles and r's. And since they all failed, we feel safe that no one cares.

*Great Lessons, Not Reviewed.*



# #1 APPLE NEWTON MESSAGEPAD

## The History

Initial Release: 1993

Price: \$699

Discontinued: 1997

The Newton was a **Personal Digital Assistant** developed by Apple during John Sculley's reign. It was revolutionary for its handwriting recognition, database-driven apps and the use of an ARM CPU. Unfortunately, it was expensive, heavy and didn't live up to its promises to the point of being mocked by the [Simpsons](#) and [Doonesbury](#). Later versions made significant improvements, but it was too little, too late. When Steve Jobs returned to Apple in 1997, he killed the Newton, but used some of its attributes in the iPhone.

### What Probably Happened?

The concept of a personal device was valid (as proven by successors such the Palm Pilot). However, once Sculley announced the product (a year before launch) they were committed to delivering the sub-optimal, overpriced product.



### Could Agile Have Saved this Product?

*With Agile, the team would have focused on delivering a valuable product at the target price without (initially) relying on the accuracy of handwriting. The product would continue to evolve through iterative learning and validation with customers. Agile principles should have saved this product.*

*Learn more: [The Complete History Of Apple Newton](#)*

# #2 IBM PCjr

## The History

Initial Release: 1984

Price: \$1269

Discontinued: 1985

This IBM PCjr was intended as a lower cost home version of the popular IBM PC to compete more directly with the successes of the Apple II and Commodore 64. Unfortunately, it had a lot of problems from the beginning with its “chicklet” keyboard, lack of compelling applications (being only partially IBM compatible), and overall poor quality. It seemed IBM wasn’t quite sure who it should be for and what they would do with it. This resulted in an expensive computer learning toy for the wealthy. After some effort to save it, including deep discounts and a free ‘real’ keyboard, IBM pulled the plug after selling about 250K units.

### What Likely Happened?

IBM CEO, “We need to compete with Apple and Commodore.” Engineers, “OK, here you go.”



### Could Agile Have Saved this Product?

*The PCjr seemed doomed from conception. If IBM understood the market and optimized the PCjr for some purpose, it may have worked given their strength in the market (which IBM over-relied on). If used properly from concept to complete, Agile might have saved it, but strategic guidance would have been critical.*

*Learn more: [IBM\\_PCjr](#)*

# #3 DELOREAN DMC 12

## The History

Initial Release: 1981

Price: MSRP \$25,000

Discontinued: 1982

This is a complex product failure to unpack quickly. Watching the two-hour movie, *Framing John DeLorean*, would be a good start. The vision for a value priced, sporty car that would last “forever” sounded great, the execution not so much. The DMC-12 was intended to be innovative for its styling (and famous winged doors), materials, features and marketing. Unfortunately, DeLorean delivered an under-powered car with a range of quality issues. While these problems were correctable, the timing was horrible with a weakening economy, Ireland’s (their manufacturing hub) political situation, and DeLorean’s difficulties in obtaining capital (we won’t address the whole drug deal for money here.)

### What Likely Happened?

A big vision with too few skills and capital to execute.



### Could Agile Have Saved this Product?

*Whew! We know many of DeLorean's early mis-decisions related to the body material, engine, interior, manufacturing facility, etc. ate a lot of time and capital that could have been avoided with an Agile approach. However, DeLorean had a big hill to climb that no process would likely have fixed. Agile might have guided better decisions, but hard to say.*

*Learn More: [DeLorean Motor Company](#)*

# #4 SAMSUNG GALAXY FOLD

## *The History*

**Initial Release:** Mar. 2019

**Price:** £1799

**Discontinued:** TBD

It's too early to call the Galaxy Fold a failure, but cell phones in general are fantastic case studies in successes and failures since they have high visibility and short product life cycles (the laboratory mice of marketing). If Samsung had low expectations and a desire to learn, this may be an outrageous success. If expecting fast, mass-market adoption, it's an abysmal failure. The flexible screen is innovative, but expensive, frailer than glass screens and valuable use cases are indeterminate. However, it may improve and find a mass following. Many people would love to use their phones for more tasks that they run to a desktop PC to perform.

### **What Likely Happened?**

Samsung probably had the data to make informed decisions, but after 10 years of development, their judgement was likely clouded with the psychological (and investor) commitment to launch.



### ***Could Agile Have Saved this Product?***

*From our knowledge of Samsung, we know they follow many Agile principles; plan, design, learn, repeat. They knew the Fold had problems, launched anyway and then delayed to fix the most pressing problems. A deeper application of Agile principles may have delayed the launch, but it appears executive decisions trumped customer feedback.*

*Learn More: [The Galaxy Fold Timeline](#)*

# #5 NEW COKE

## *The History*

**Initial Release:** April 23, 1985    **Price:** ~\$1.49/six pack  
**Coke Classic Relaunch:** 79 Days Later

New Coke was introduced to stem Pepsi's rising market share gained through the famous "Pepsi Challenge" campaign. To fight back, Coke concluded they needed a sweeter formula. It's hard to believe Coke didn't understand the value of their brand and some have argued (mostly us) that New Coke was a brilliant move to get two Coke products into the market; 1) they knew customers would demand original Coke back, and 2) they would have a new product to compete with Pepsi along with twice the shelf space.

### **What Likely Happened?**

The literature seems to conclude that CEO Roberto Goizueta panicked by Pepsi's growing market share and made a bold (but flawed) move. This may not be the whole story.



### ***Could Agile Have Saved this Product?***

*This is not a typical problem for Agile to solve, but it's worth the mind experiment. Coke tested New Coke with over 200,000 customers. Our question is, "Why didn't they do a test market before national rollout?" If they deployed in market such as a metro region, Agile would have helped avoid this product fiasco (unless, of course, it was planned).*

*Learn More: [The History of New Coke](#)*

# #6 APPLE LISA

## The History

Initial Release: 1983

Price: \$9,995

Discontinued: 1985

One of Apple's most famous product failures, the Lisa was a high-end personal computer that took three years and \$50 million to develop. While Lisa featured new innovations like one of the first GUIs, an integrated mouse, expansion slots, file system and other advanced features, the market determined it was too expensive and relatively underpowered.

### What Likely Happened?

By the time Apple was able to fix the problems, IBM had begun to dominate the business PC market and Steve Jobs himself cannibalized Lisa sales with the lower priced Macintosh. For a trip back in time, enjoy this [Lisa demo video](#). We've come a long way... (or have we?)



### Could Agile Have Saved this Product?

*Yes. Agile would have provided the framework to make better trade-off decisions to get a viable product into the market faster with less investment. How do we know? Jobs did it with the Macintosh. Agile principles are in his DNA as you see in all of his product successes. The prototype for an iPod? A foam brick in his pocket.*

*Learn More: [History of Apple Lisa](#)*

# #7 GOOGLE GLASS

## The History

**Initial Release:** Feb 2013 (Developers)    **Price:** \$1500

**Discontinued:** Consumer version 2017, Enterprise still available

Google Glass was slated to revolutionize mobile apps — or at least allow you to look geeky while checking stock prices. You can't argue that their PR machine was amazing to generate hype, but the glasses themselves were fraught with problems such as privacy issues, functionality, and of course, the hefty price. While the concept still has life with many companies attempting to emulate Google's failure and Glass is still offered for enterprise purposes, it never attracted a wide audience before being ridiculed out of consumer existence.

### What Likely Happened?

Someone in Google X: "These are really cool and we have \$100T in the bank."

Astro Tello (CEO): "Great! Let's do it!"



### Could Agile Have Saved this Product?

*Google did use an Agile approach by using early prototypes to receive feedback and refine the product. However, their strategy is questionable. Instead of attacking the masses, it could have found targeted applications and then gone broader. But you know what they say in Silicon Valley, "Go big or go home." Google did both.*

*Learn more: [History-google-glass](https://www.google.com/history-glass/)*

# #8 WEBVAN

## The History

Initial Release: June 1999    Price: Milk \$2.99

Discontinued: July 2001

Webvan was a poster child of .com era exuberance. Being in Silicon Valley at the time, it was fascinating to watch company after company collect \$millions in VC money (with the aim to go public as fast as possible) regardless of any valid business model. After dumping \$1.2 B of private and public investment into the company, Webvan determined there just wasn't enough margin in delivering Twinkies to your home. Of course, others have learned to make it work — and a pandemic didn't hurt.

### What Likely Happened?

It was the heady days of the .com era. Online groceries was a relatively untapped market forecasted to be huge, so someone had to do it.



### Could Agile Have Saved this Product?

*Nothing would have likely saved Webvan other than better timing, strategic partnering, controlling costs and far more testing with various market segments until they found a viable business model. An Agile process could have helped, but the goal at the time was fast growth at any cost. They grew fast and died fast — with little runway to learn.*

*Learn More: [Lessons from Webvan](#)*

# #9 AMAZON FIRE

## *The History*

**Initial Release:** June 2014    **Price:** \$650

**Discontinued:** August 2015

Amazon is a quirky little company that enjoys playing outside its sandbox. While most things it tries seem to end up expanding its playground from its streaming services to Alexa, the Amazon Fire phone was a misfire. While it did have a few innovative features such as “Dynamic Perspective”, “X Ray” and “Mayday” (which we’re still trying to understand), it was bad timing for a generally me-too phone that had to compete with iPhones and a slew of Androids. With no price advantage and poor reviews, it suffered a quick death after a \$170M write-off.

### **What Likely Happened?**

The bottom line is that the mobile phone market is crowded, sophisticated, expensive to enter and mistakes are rarely tolerated.



### ***Could Agile Have Saved this Product?***

*While Amazon typically follows Agile principles such as focusing on “MVPs”, they clearly misunderstood the “Viable” part this time. But that’s OK. Amazon can afford some failures and will continue to work on their Agile skills and fail (and succeed) with more big product experiments. Maybe even another shot at an iPhone killer.*

*Learn More: [Amazon Fire Phone](#)*

# #10 HP TOUCHPAD

## *The History*

**Initial Release:** July 2011

**Price:** \$499.99 (16 GB)

**Discontinued:** August 2011

The HP TouchPad was heralded as a response to the Apple iPod and HP's return to cool consumer electronics. It didn't work. Based on Palm's webOS, the TouchPad featured multitasking and Adobe Flash browsing (always a winner). It wasn't completely horrible, but as a Cnet review summarized at launch, "... its design, features and speed put it behind today's crop of tablet heavyweights." A common first impression that quickly doomed the TouchPad in 49 days.

### **What Likely Happened?**

It's complicated, but HP was focused on enterprise solutions and hadn't built the DNA to develop an iPad killer. It was also a big risk trying to push a third OS to compete with iOS and Android.



### ***Could Agile Have Saved this Product?***

*One problem LARGE companies have is their need to make BIG bets. If they lose, they take the write-off and leave the game. Agile can improve a winning average through an iterative approach, engaging with customers and refining the product. Plan. Execute. Learn. Repeat. In this case, it appears HP's process was Plan. Execute. Quit.*

*Learn More: [The Curious Case of the HP TouchPad](#)*

# IN CONCLUSION

Agile (or any process) cannot replace sound strategy, capable leadership or the necessary skills and capital to develop successful new products. However, by applying the core Agile principles, most product failures can be avoided or significantly mitigated through rapid iteration and learning cycles, empowered teams and a focus on customer value.

**What is your favorite product failure, and do you think Agile principles might have avoided the disaster?**

Comment on this article or let us know at:

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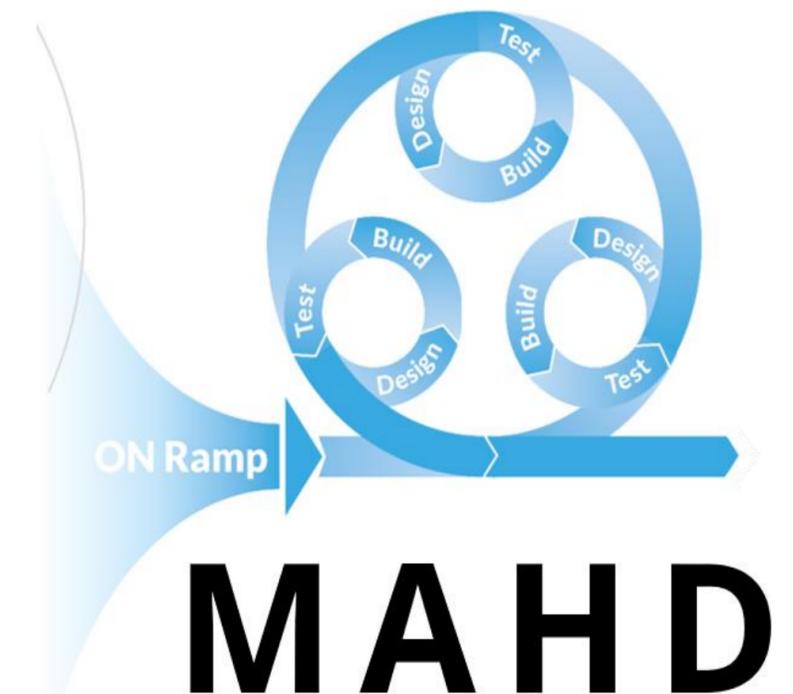
# WHAT IS MAHD?

Agile methods are sound but require modifications to support the needs of hardware development. This is because HW changes are costly, partial products are difficult to test with real customers and schedules are needed by management and production.

The Modified Agile for Hardware Development (MAHD) Framework provides the benefits of Agile but supports the needs of physical products.

Learn more at:

[www.AgileforHardware.org](http://www.AgileforHardware.org)



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