

Technical Debt

Software Maintenance

Software needs to be

Fixed

Enhanced

Maintained

Unlike other systems, software needs constant modification

Maintenance, worse than development, is constrained by fixed budgets and impossible timelines

Defining Technical Debt

Term coined by Ward Cunningham in 1992

Analogous to financial debt

Financial Debt = borrow money against a future date

Technical Debt = borrow time against a future date

How Debt is Created

Making a change perfectly

- Preserves design integrity

- Testing thoroughly

- Utilizing good programming practices.

Making the Change Work

- As fast as possible, if not faster

- With as few people as possible

Indicators

We'll do the:

- Documentation later

- Testing in the next release

Don't touch that part of the code we don't know what will happen

// ToDo: ...

The deadline is approaching, just do it

Debt Pros/Cons

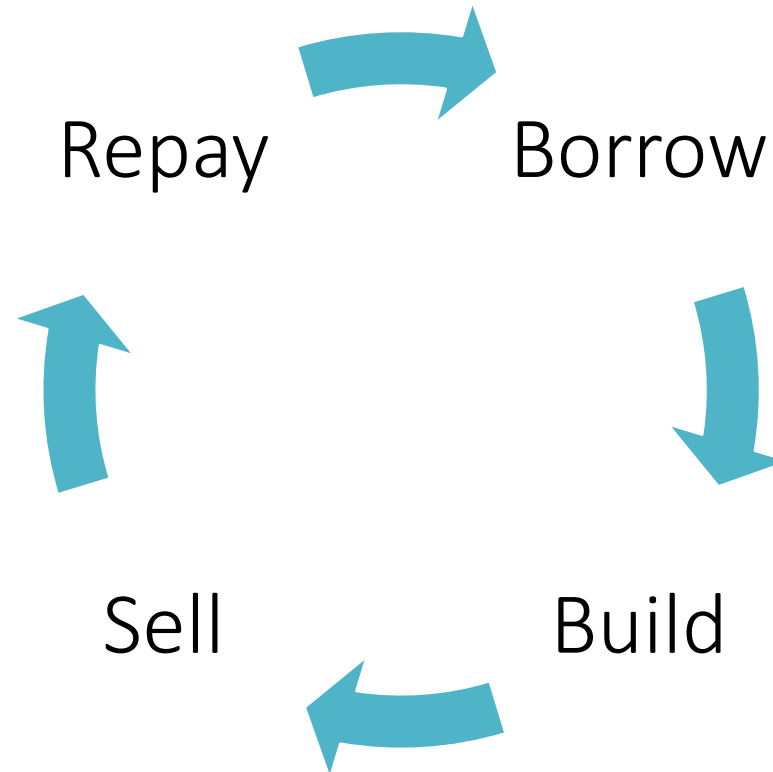
Pros

- Perceived higher productivity
- Lower cost of the current release

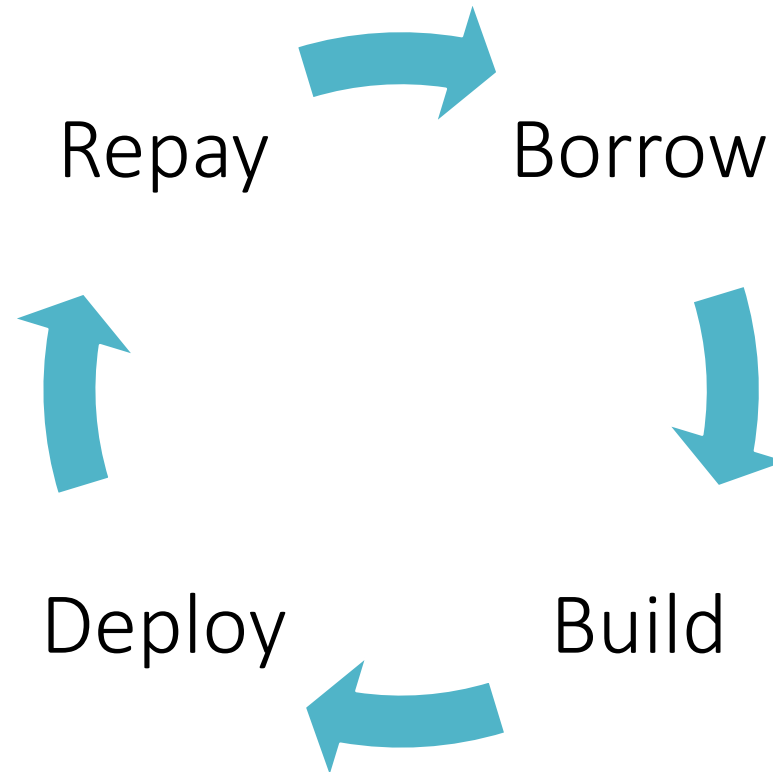
Cons

- Increased maintenance costs
- Risk that the debt will become unmanageable
- You could have to rewrite everything

Just as not all financial debt is bad



Nor is All Technical Debt



Summary

Technical Debt is

A sometimes silent killer of all projects

Don't succumb to project bankruptcy

Hard Choices

Game Rules:

The game may be played by 2-4 people.

A player can move in any direction and may even change directions in a single turn.

The first player to reach END gets 5 points, second gets 3 points, third gets 1 point.

When a player reaches End, he or she also gets 1 point for each tool card.

To enter the "Finish" cell the player should roll anything equal or greater than the remaining squares.

The game ends when there is 1 player remaining on the board.

The player with the most points at the end of the game WINS

Hard Choices Squares

When a player crosses a “hard choices” square, he or she must decide whether to go over the shortcut bridge or whether to go the long way and try to collect one or more tool cards.

Hard Choices—Bridges and Tool Cards

Bridges count as one movement, similar to squares.

A player who chooses to go over a shortcut bridge must collect a bridge card. Each bridge card subtracts 1 from subsequent rolls of the die.

A player may get rid of a bridge card by skipping a turn anytime during the game.

If a player lands on a tool square:

If the player does not already have a tool card, the player gets a tool card.

If the player already has a tool card, the player may play the tool card and get a free a turn OR collect another tool card.

How to Avoid Technical Debt

<http://blog.asynchrony.com/2014/01/defect-prevention-trumps-defect-correction-every-day-twice-launch-day/>