DEPENDENCY MANAGEMENT IN FLIGHT LEVEL SYSTEMS

Now with added AI

How does AI change dependencies in Flight Levels?

Flight Level Days 2026
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FLIGHT LEVELS ACADEMY

CHALLENGES

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AI • PRODUCTIVITY

Thousands of CEOs admit AI had no impact on employment or productivity—and it has economists resurrecting a paradox from 40 years ago

By Sasha Rogelberg
Reporter

April 19, 2026, 10:58 AM ET

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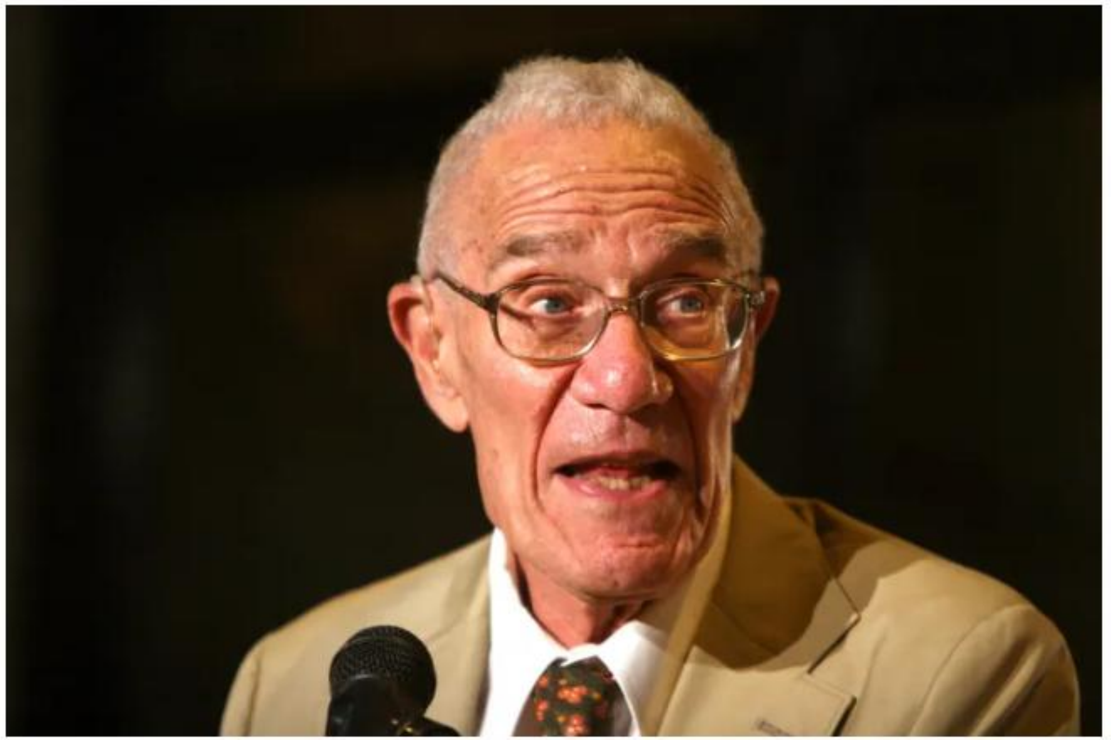

Nobel laureate and economist Robert Solow noticed a productivity paradox in the IT age of th Up Next - Meet Blacksto

improvement

BLOCKERS WERE…

IT IS A BLOCKER IF YOU [……]
SOMETHING NEEDED RIGHT NOW

Can’t start…

Can’t finish…

DEPENDENCIES WERE…

IT IS A DEPENDENCY IF YOU [……]
SOMETHING IN THE FUTURE

Can’t start…

Can’t finish…

Shouldn’t start…

Dependency Management allows us to start and finish work in the desired order with minimal blocking

SHIP/DELIVER

WHAT'S FLIGHT LEVELS GOT TO DO WITH IT?

Flight Level 3

– Decide what work we want to do and its desirable delivery order

Decide WHY we want to deliver some work before other work

Flight Level 2

– Coordinate that work being delivered in that desired order

Coordinate the delivery of that work (for aspects OTHER than coding)

A Taxonomy of Dependencies in Agile Software Development

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Abstract

Dependencies in a software project can contribute to unsatisfactory progress if they constrain or block the flow of work. Various studies highlight the importance of dependencies in the organisation of work; however dependencies in agile software development projects have not previously been a research focus. Drawing on three case studies of agile software projects, and the IS literature, this paper develops an initial taxonomy of agile software project dependencies. Three distinct categories of dependency are found: task, resource, and knowledge dependencies. This paper contributes to theory by providing a taxonomy of dependency types occurring in the area of agile software development. Practitioners can use this taxonomy as sensitising device to ensure they consider dependencies they might face that could hinder their projects, enabling them to take appropriate and timely mitigating action.

Keywords

Agile software development, Dependency analysis, Dependency Taxonomy, Software project dependencies.

https://dro.deakin.edu.au/eserv/DU:30049080/strode-taxonomyofdependencies-2012.pdf

KNOWLEDGE DEPENDENCIES

Knowledge Dependency

Can't start or complete something until we LEARN

AI GREATLY REDUCES

(for code, not business decisions)

What is sensitive information that needs special storage?

What type of battery capacity do we need? (clarification)

What will be our technical approach?

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TASK DEPENDENCIES

Task Dependency

Can't start or complete something until we have DONE

AI NEARLY ELIMINATES (for code)

Create an API for secret storage

Write UI code to store a secret using the API

Legal needs to write the privacy policy

RESOURCE DEPENDENCIES

Resource Dependency

Can't start or complete something until we GET

AI HAS LITTLE IMPACT

- **A SSL certificate or encryption key**
- **The approved privacy statement content needs to be ready to go**
- **A test environment to test the API**

ALIGNMENT DEPENDENCIES

Alignment Dependency

SHOULDN'T start or complete something until we HAVE

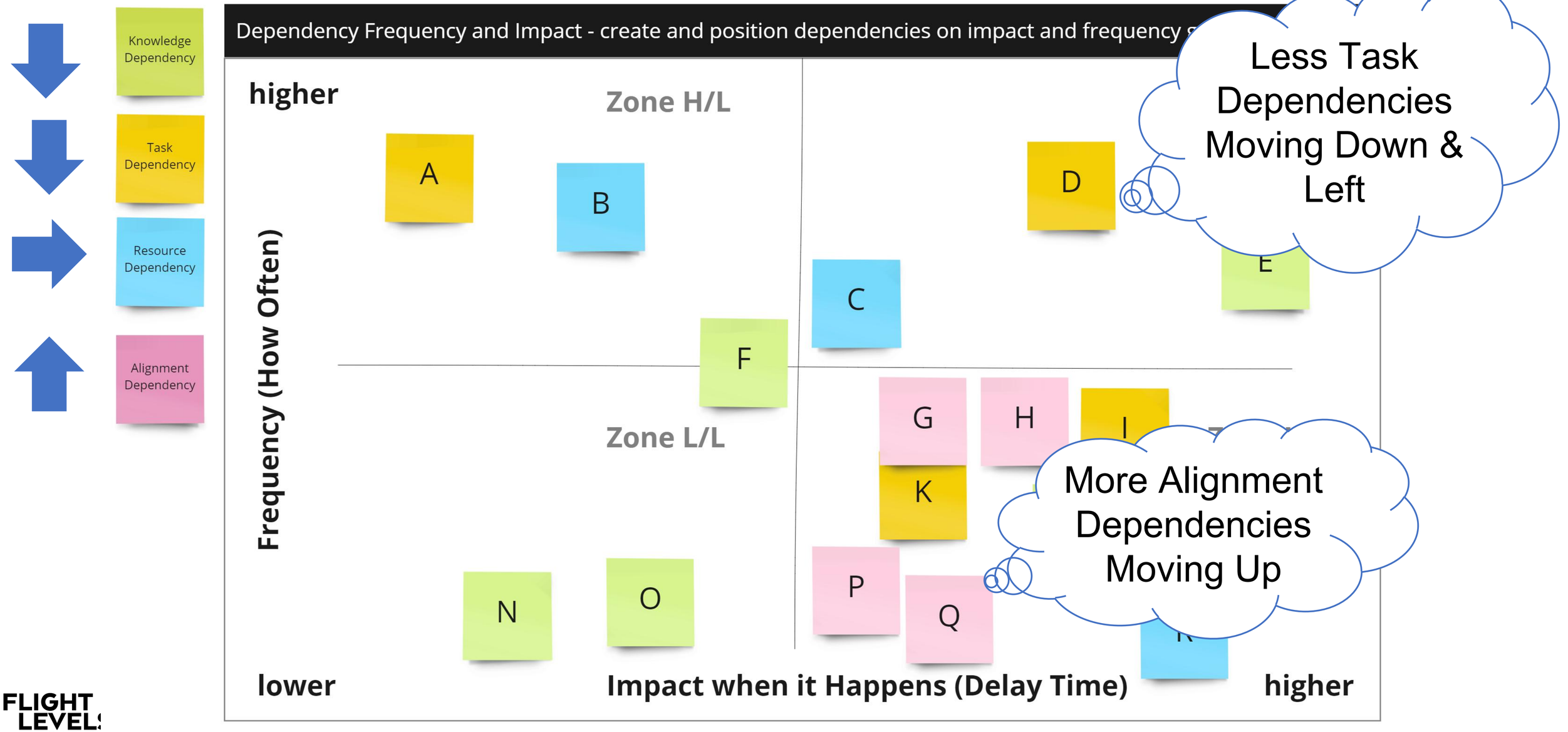
AI MAKES WORSE

Training and website needs updating with new features

Upgrade the Android and iPhone Applications

All products update Log4J library

FREQUENCY & IMPACT MAPPING

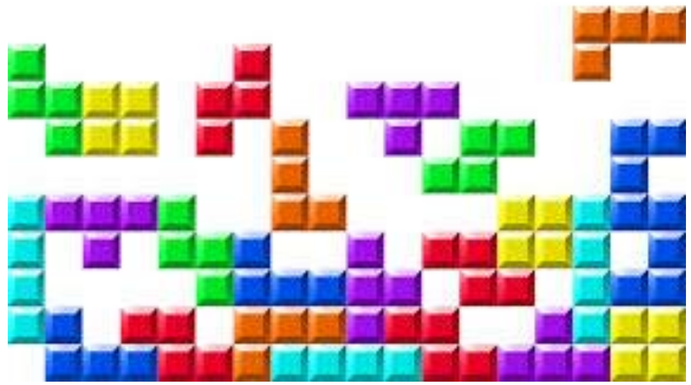


FLIGHT LEVELS ACADEMY

WORK, SKILLS, AND TIME TETRIS

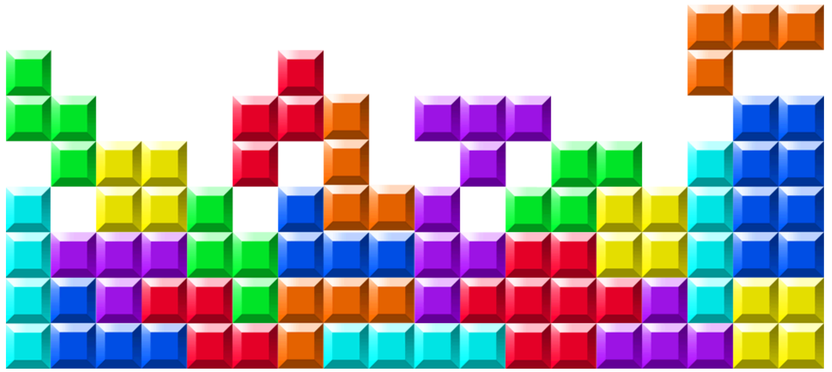
Today: Lots of gaps. We get it done, but not everyone is happy about how long it takes

Work: spans multiple teams with varying effort

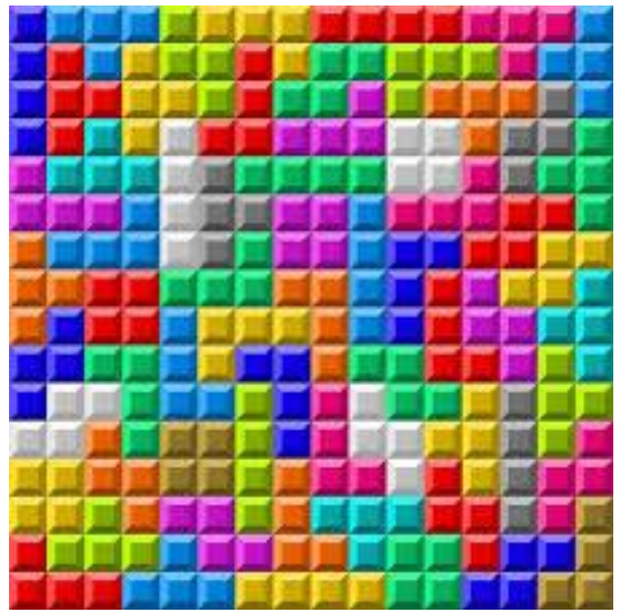


Balance utilization and value delivery

Meet Flight Level 2
Pre-AI: “Internal” dependencies
AI: “External” dependencies



Utilization focus
Theoretical - perfect; NOT our goal



Delivered value (time)

Teams / people and skills

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CAN “I” OR “WE” DO IT ALONE….

Things I can do alone

Reducing with AI

EASY

Things my team can do

Things my company can do

Increasing with AI

Things external people need to do

HARD

FLIGHT LEVELS ACADEMY

ALIGNMENT IS THE NEW CONSTRAINT

As coding gets cheaper and faster, the real constraint shifts from coding to judgment: choosing the right work, shaping it well before coding starts, applying the right review depth, verifying the right risks, and learning from what happens after release.

Don’t we have a level for that?

CHALLENGE

Given we can start whatever we want, what should we start to decrease “Alignment” and “Resource” constraints

Feature supports Strategy

Non-AI Coding Tasks

Code Review

Go-To-Market Things

Is / was it worth it?

What did we screw up last time?

Layer 1: Should we do this?

Score strategic relevance, expected value, cost of delay, downside risk, clarity, verification readiness, activation burden, and AI suitability.

Weights rank Gates stop

Layer 2: How should we do it?

Route work into execution lanes and match review depth, verification strength, rollback sensitivity, and human oversight to the true delivery risk.

AI-first AI + guardrails Human

Layer 3: Was it worth it?

Inspect adoption, repeat usage, strategic movement, regressions, hidden cleanup, activation success, and hindsight quality of the priority choice.

Those results flow back into the next prioritization round.

FL1

FL2 & 3

FL1

BALANCED METRICS

Executive dashboard

Mostly lagging measures showing whether the system produces the right outcomes.

Value
Percent of delivered work with meaningful adoption and repeat usage

Impact
Percent of completed work that materially advanced a strategic initiative

Safety
Regressions, security issues, and cleanup burden per shipped item

Timing
Capacity spent on high-cost-of-delay work

Adaptation
Repeated issue types causing fewer regressions over time

This view should stay sparse. If it becomes operationally noisy, leaders will start managing the mechanics instead of the outcomes.

Delivery leadership dashboard

Structural measures for directors and managers improving the delivery system itself.

Review depth matched to risk
Are high-risk, high-value PRs getting the right review attention?

Verification effectiveness by work type
Which categories still surprise us after merge?

Activation burden discovered late
How often do rollout, docs, or support dependencies surface after coding?

Hindsight quality of priority choices
Did our sequencing logic hold up once the work landed?

Post-merge issue trends by pattern
Are the same failure classes recurring, or actually getting safer?

This dashboard is about leverage: where a manager can change routing rules, review policy, verification expectations, or planning discipline.

Team dashboard

Short-cycle signals that help a delivery team improve judgment on current work.

Outcome clarity before start
Did we know what success looked like before coding began?

Review depth versus PR risk
Are we reviewing proportionally, or using one review mode for everything?

Similar issue safety trend
Are repeated issue types getting less dangerous over time?

Opportunity-cost errors caught early
Did we spot a better option before committing too much effort?

Reusable review guidance created
Are reviews producing future leverage, not just one-time corrections?

This is the coaching view. The measures should be close enough to current work that a team can change behavior in the next sprint.

DIMENSION WEIGHTS RESET

Drag sliders to emphasize dimensions. Lock a dimension to keep it fixed while others rebalance. Total always sums to 100%.

STRATEGIC FIT 29%

CUSTOMER VALUE 12%

PRIORITY / URGENCY 12%

CLARITY & READINESS 12%

VERIFICATION READINESS 12%

DELIVERY SAFETY 12%

AI SUITABILITY 12%

CONSTELLATION NESTED RINGS HEAT RADAR

WEIGHT PROFILE

- Strategy 29%
- Value 12%
- Priority 12%

Top-3 weighted dimensions

PRIORITIZED RANKING 16 ITEMS

1	PredictabilityAtScale/askpilot#8 · AI-WITH-REVIEW Website: Make a Use-Case set of pages		79
2	PredictabilityAtScale/usagetap#97 · AI-WITH-REVIEW Onboarding Experience		74
3	PredictabilityAtScale/usagetap#127 · AI-WITH-REVIEW Add UsageTap customer-implementation skill, docs guide, and doc links		74

CONTACT ME / LINKS

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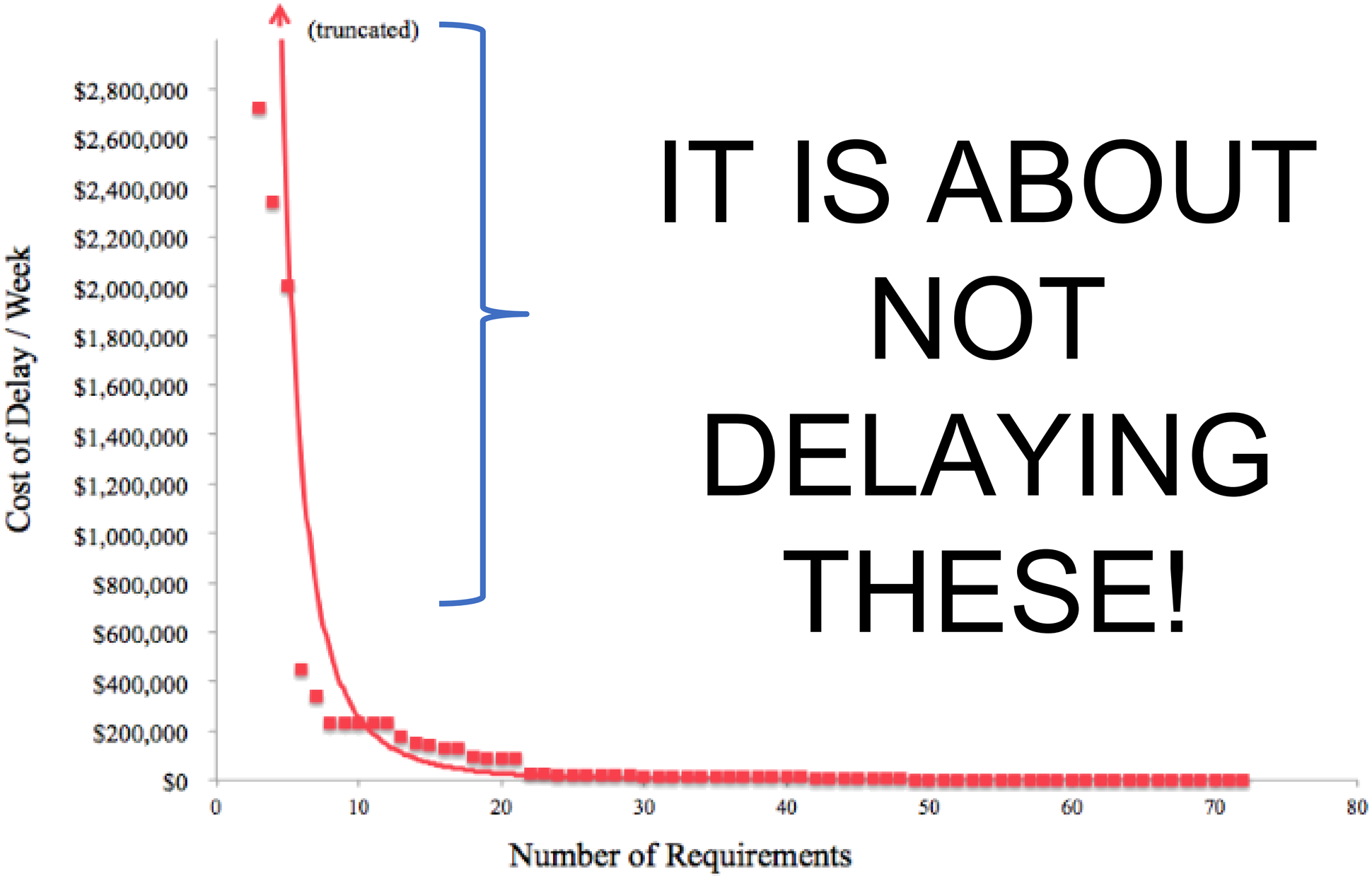
Want feedback on - https://github.com/FocusedObjective/vistaDeliveryTower.com



IT IS ABOUT NOT DELAYING THESE!

Full paper at http://blackswanfarming.com

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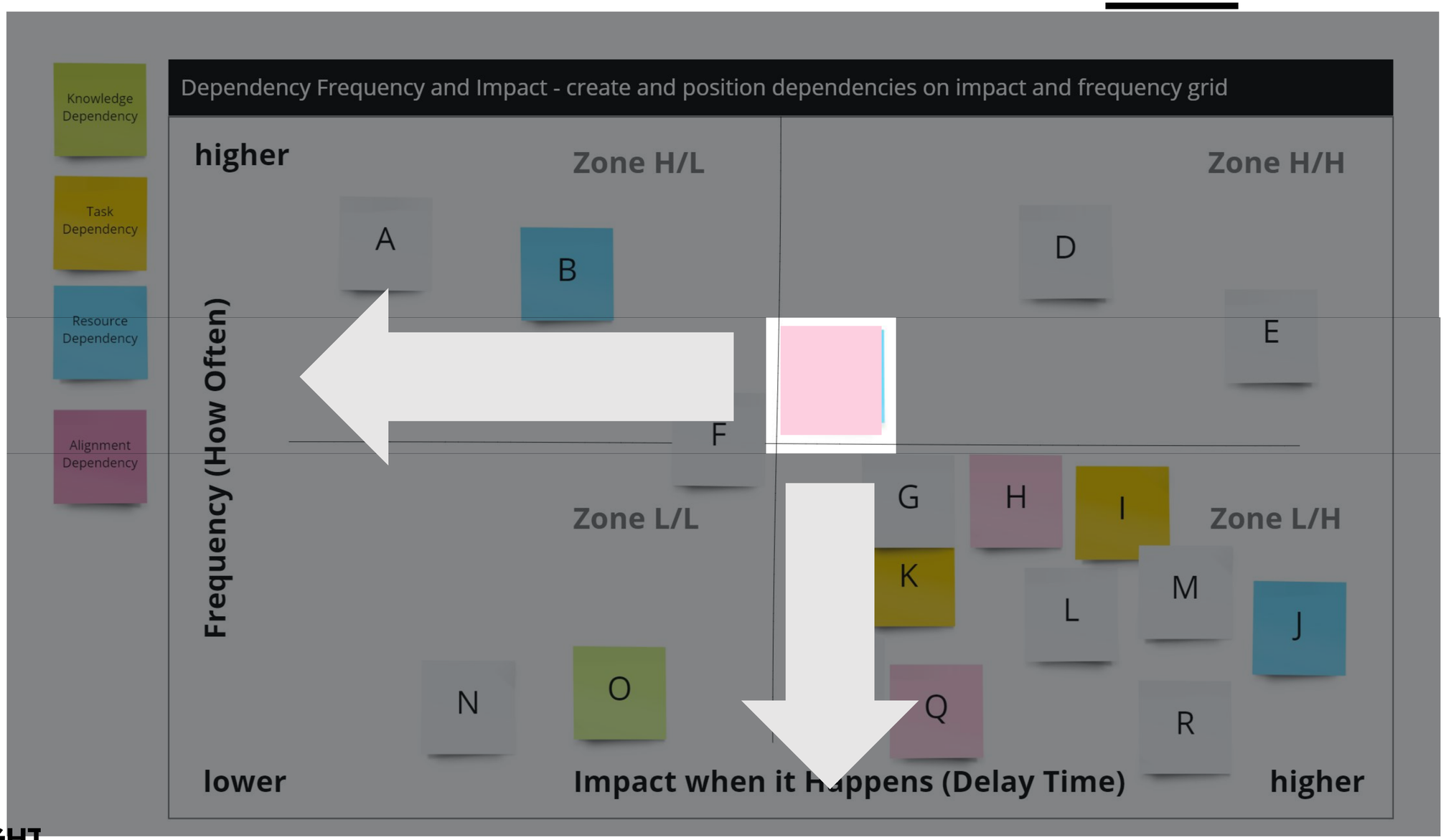
GOAL FL2: FREQUENCY *OR* IMPACT



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But, where does AI help?

RIGHT WORK

Strategy context

CONFIGURED

Ground scoring in the organization's current goals so strategic fit is judged from explicit context instead of inferred from issue wording.

EDITABLE CONTEXT

LLMAsAService.io: is a hosted tool that allows AI agents to be included into existing applications. It handles failing over to multile models, tracking costs, managing customers and recording their conversations for improvement. It allows these companies to create AI Agents and embed chat panels into their applications with a few lines of code. The prompts and instructions for these agents can be versioned and changed at any time without redeployment.

AskPilot.io: Is a conversational survey and role playing system. It allows surveys to be created and embedded into applications or sent via email. The differentiator is how the follow-up questions are asked to fulfill a questions intent, not a static survey path, and how the responses can be analyzed using an AI chat system.

1085 CHARS UP TO DATE | USE STARTER TEMPLATE | RESET SECTION | SAVE STRATEGY CONTEXT

PURPOSE

Use this for durable context about why work matters now: the mission, current bets, target segments, known risk areas, and what outcomes the team is trying to move.

INCLUDE

- Current strategic themes, roadmap bets, or business objectives
- Target customers, segments, or internal teams that matter most right now
- Known risk areas or domains that need extra caution
- Delivery constraints that shape what 'good' work looks like

AVOID

Avoid dumping transient ticket lists or implementation details. This field should explain intent and relevance, not act as a backlog clone.

WHY NOW

Prioritization rules

CONFIGURED

Tell the assessment pipeline how to weigh urgency, impact, readiness, and policy so lane recommendations reflect your real tradeoffs.

EDITABLE CONTEXT

FLIGHT LEVELS ACADEMY

Levels.io

Sense

Understand

Possibilities

Pick a dependency or other flow blocker and work the problem as a group

Dependency...

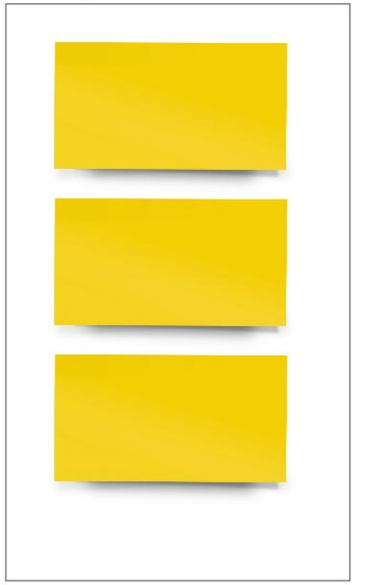
What is common when it occurs (these teams, these times, this work type)

Causes (why, why, why...)

What changes would decrease the occurrence frequency?

What changes would decrease the impact when it occurs?

Experiments



FLIGHT LEVELS ACADEMY

Pick a dependency or other flow blocker and work the problem as a group

Blocked by Content missing

Sense

What is common when it occurs (these teams, these times, this work type)

- Website UI changes
- New images needed
- New text and content

Understand

Causes (why, why, why...)

- Lead time to create
- Approval needed
- Often needs changes after we see it

Possibilities

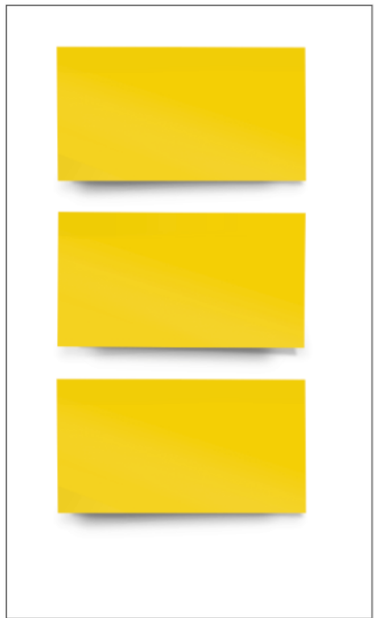
What changes would decrease the occurrence frequency?

- Better Image Spec documentation
- Next 5 Images needed list
- Next 5 text content needed list

What changes would decrease the impact when it occurs?

- Advise Designers when we start new work
- Use temporary placeholders
- Change who can approve
- Get approval checklist
- Get a Graphic designer on our team

Experiments



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PICKING EXPERIMENTS…

What changes would decrease the occurrence frequency?

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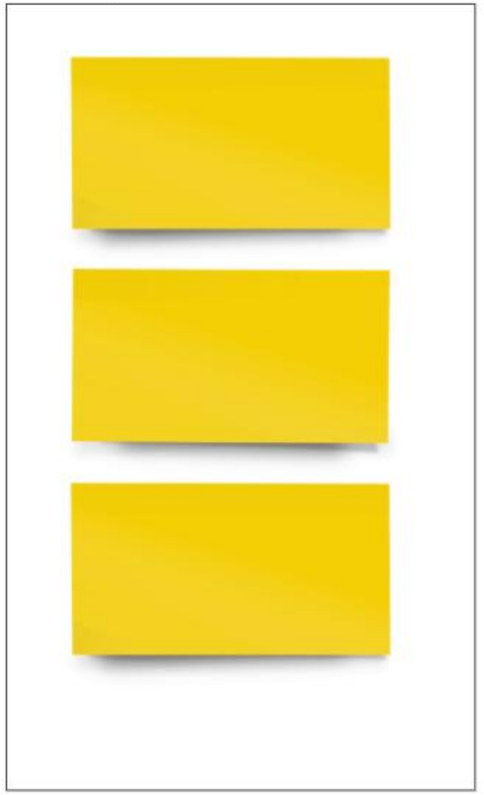

Just move the blocker

Expensive

Just add Communication

CAN “I” OR “WE” DO IT ALONE….

Things I can do alone

Reducing with AI

EASY

Things my team can do

Things my company can do

Increasing with AI

Things external people need to do

HARD

FLIGHT LEVELS ACADEMY

Q. WHICH EXPERIMENTS IF MAJOR WEBSITE CHANGES COMING UP

What changes would decrease the occurrence frequency?

- Better Image Spec documentation
- Next 5 Images needed list
- Next 5 text content needed list

What changes would decrease the impact when it occurs?

- Advise Designers when we start new work
- Use temporary placeholders
- Change who can approve
- Get approval checklist
- Get a Graphic designer on our team

Experiments

- Hire or borrow a graphic designer
- Change who can approve
- Next 5 Lists

Just move the blocker

Expensive

Just add Communication

Q. WHICH EXPERIMENTS IF MINOR WEBSITE CHANGES COMING UP

What changes would decrease the occurrence frequency?

- Better Image Spec documentation
- Next 5 Images needed list
- Next 5 text content needed list

What changes would decrease the impact when it occurs?

- Advise Designers when we start new work
- Use temporary placeholders
- Change who can approve
- Get approval checklist
- Get a Graphic designer on our team

Experiments

- Advise designers when we start work
- Change who can approve
- Next 5 Lists

Just move the blocker

Expensive

Just add Communication

DID IT WORK? DID IT MOVE?