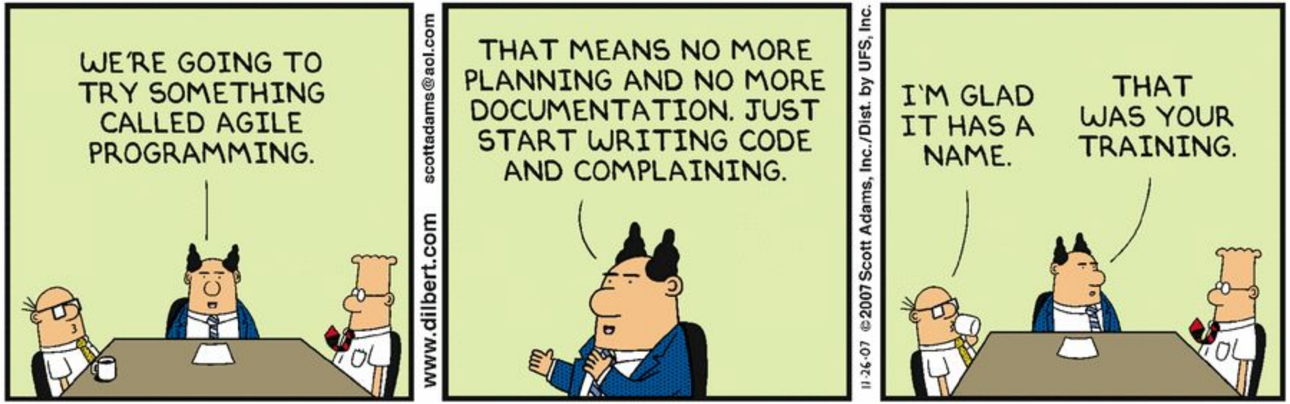
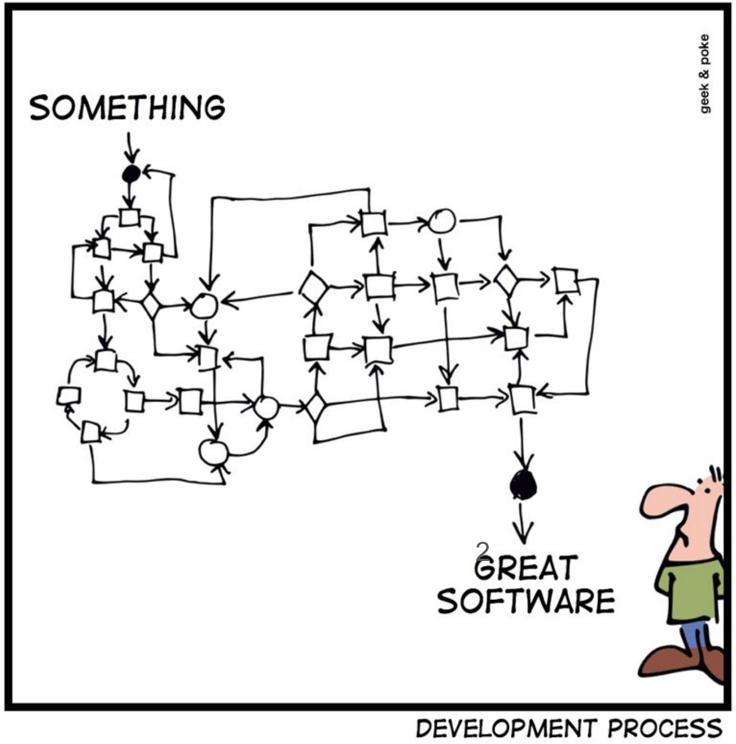

WE'RE GOING TO TRY SOMETHING CALLED AGILE PROGRAMMING.
scottadams@aol.com
www.dilbert.com
THAT MEANS NO MORE PLANNING AND NO MORE DOCUMENTATION. JUST START WRITING CODE AND COMPLAINING.
11-26-07 ©2007 Scott Adams, Inc./Dist. by UFS, Inc.
I'M GLAD IT HAS A NAME.
THAT WAS YOUR TRAINING.

Remote Agile

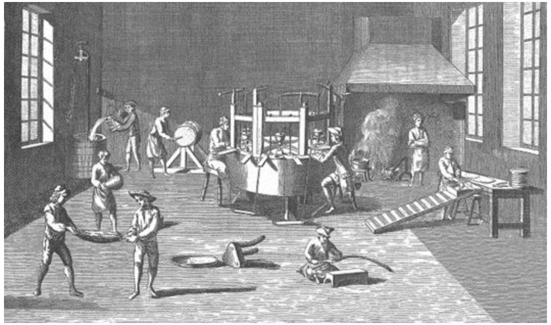
99-520 Summer 25

Software development methods

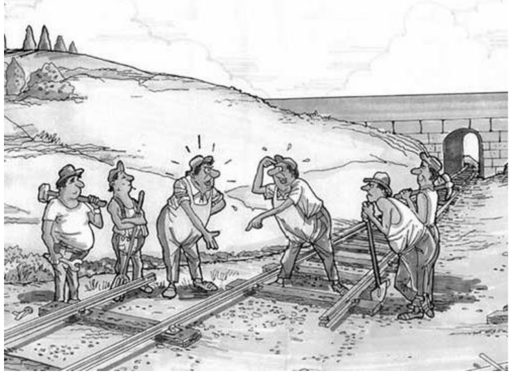
Software development methods are <u>codified practices </u>that support the work of a group and are based on an idea of how is <u>best to work</u> to achieve a particular business goal



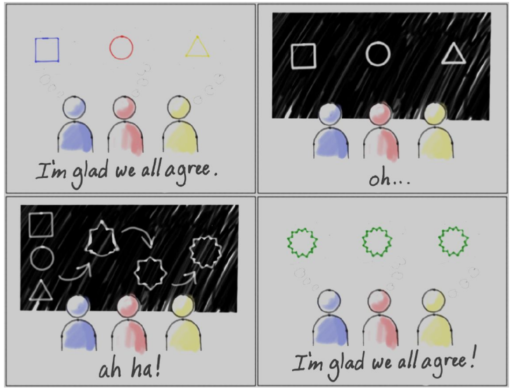
Successful projects require that their members:



… divide the work …

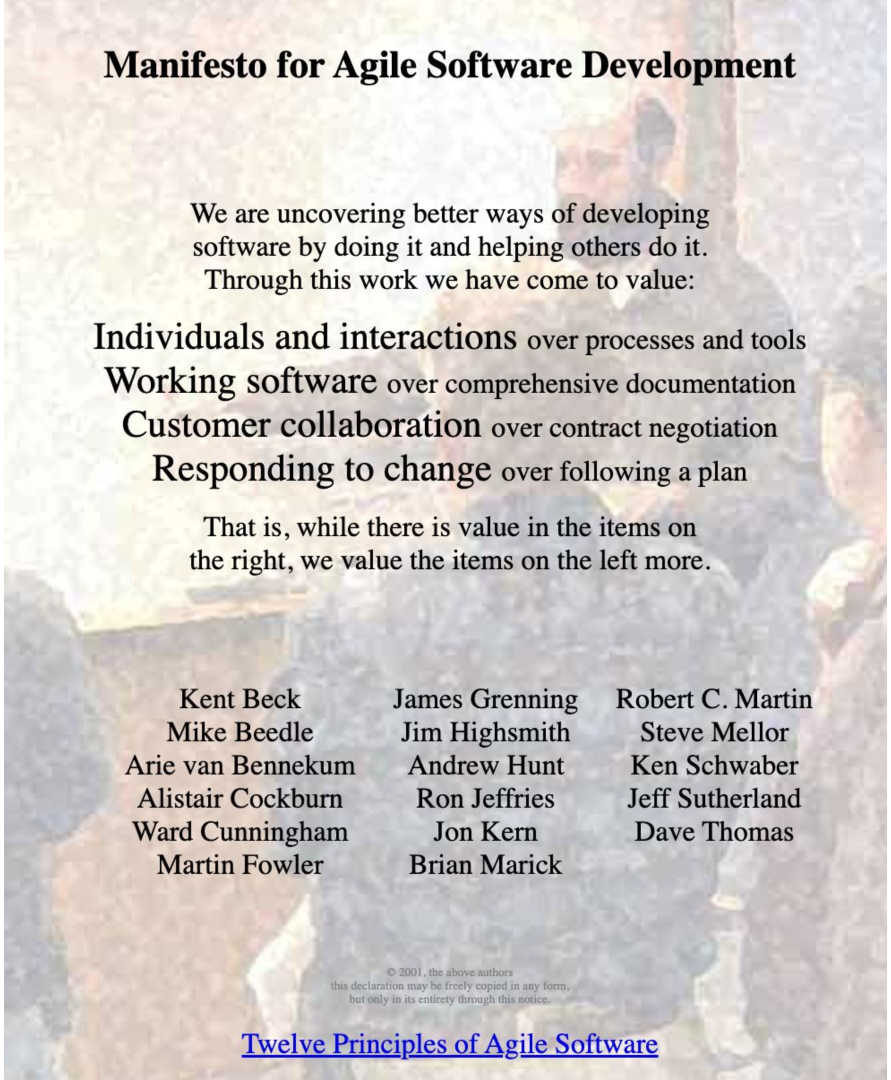


… coordinate their activities and resources …



… achieve a shared understanding of the work to be done …

… and align their efforts



Manifesto for Agile Software Development

We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

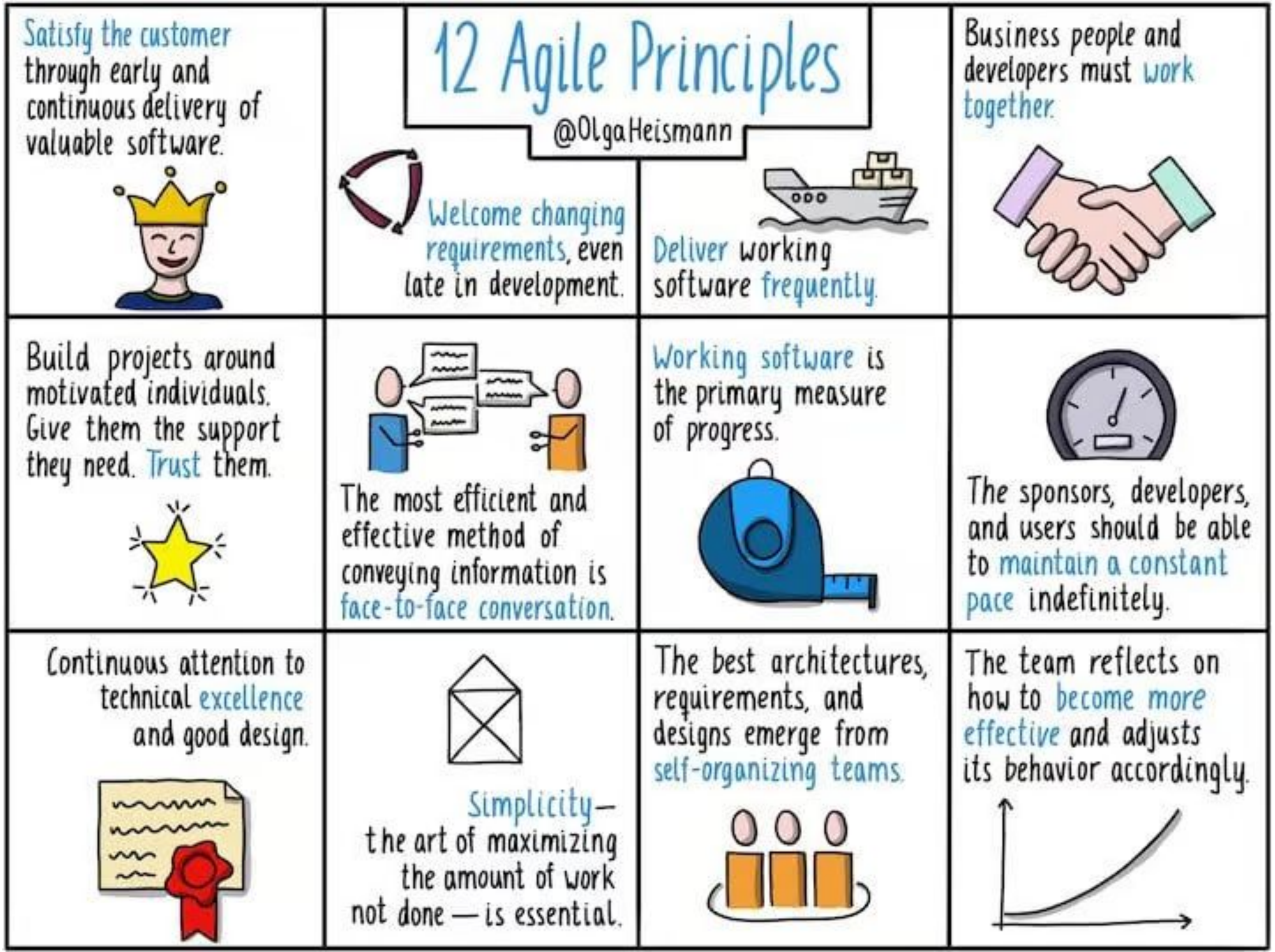
That is, while there is value in the items on
the right, we value the items on the left more.

Kent Beck
Mike Beedle
Arie van Bennekum
Alistair Cockburn
Ward Cunningham
Martin Fowler

James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Brian Marick

Robert C. Martin
Steve Mellor
Ken Schwaber
Jeff Sutherland
Dave Thomas

Twelve Principles of Agile Software



12 Agile Principles

@OlgaHeismann

Satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development.

Deliver working software frequently.

Business people and developers must work together.

Build projects around motivated individuals. Give them the support they need. Trust them.

The most efficient and effective method of conveying information is face-to-face conversation.

Working software is the primary measure of progress.

The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design.

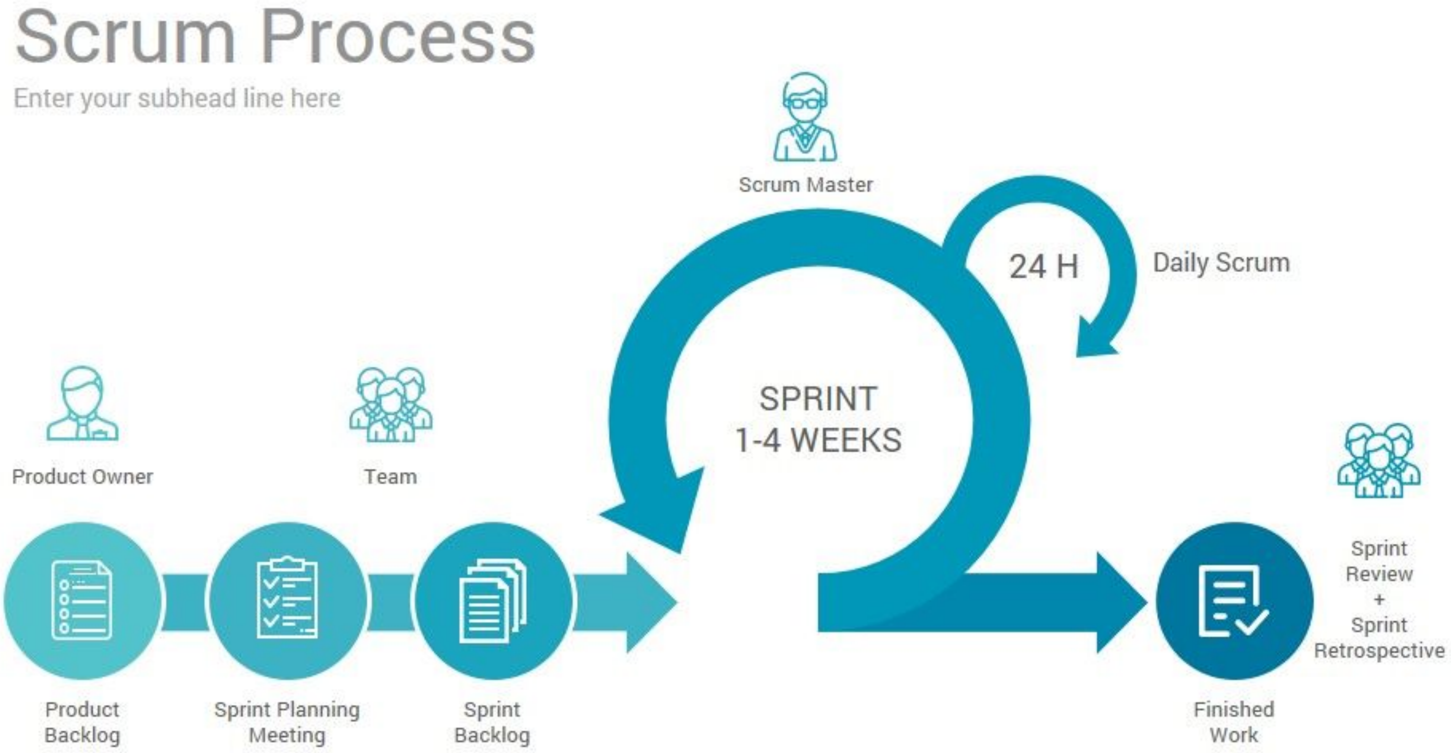
Simplicity— the art of maximizing the amount of work not done — is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

The team reflects on how to become more effective and adjusts its behavior accordingly.

Source: @OlgaHeismann

Elements of Scrum

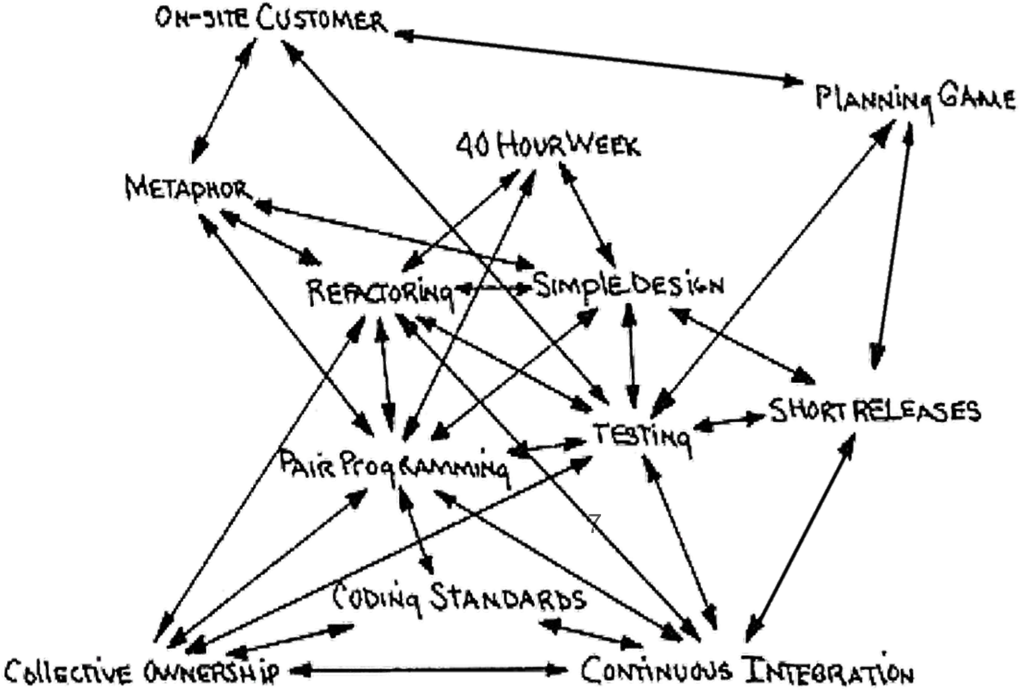


Scrum Process

Enter your subhead line here

If we are going to change any of a method’s practices, we need to understand the role they play and the interactions between them

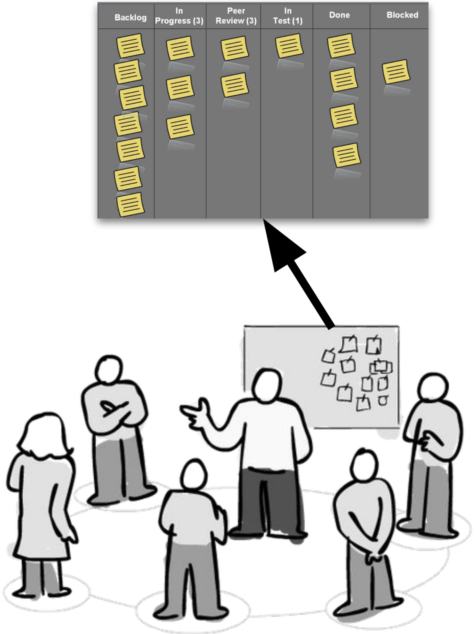
> *“Any one practice doesn't stand well on its own. They require the other practices to keep them in balance. Figure 4 is a diagram that summarizes the practices. A line between two practices means that the two practices reinforce each other. I didn't want to present this picture first, because it makes XP look complicated. The individual pieces are simple. The richness comes from the interactions of the parts”*



Method’s practices support each other

Extreme Programming Explained, K. Beck, 1999

Scrum: Standup Meetings



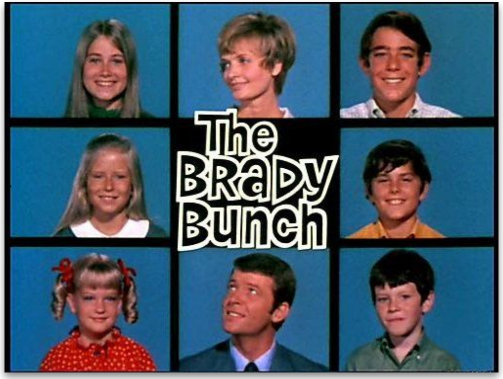
www.pictofigo.com

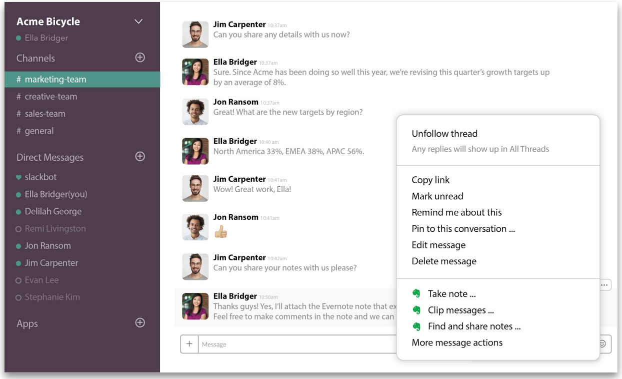
No longer than 15 minutes

Everyone should answer:

- What did you accomplish since the last meeting?
- What are you working on until the next meeting?
- What is getting in your way or keeping you from doing your job?

Scrum: Standup Meetings





Jim Carpenter 10:37am
Can you share any details with us now?

Ella Bridger 10:37am
Sure. Since Acme has been doing so well this year, we're revising this quarter's growth targets up by an average of 8%.

Jon Ransom 10:37am
Great! What are the new targets by region?

Ella Bridger 10:40 am
North America 33%, EMEA 38%, APAC 56%.

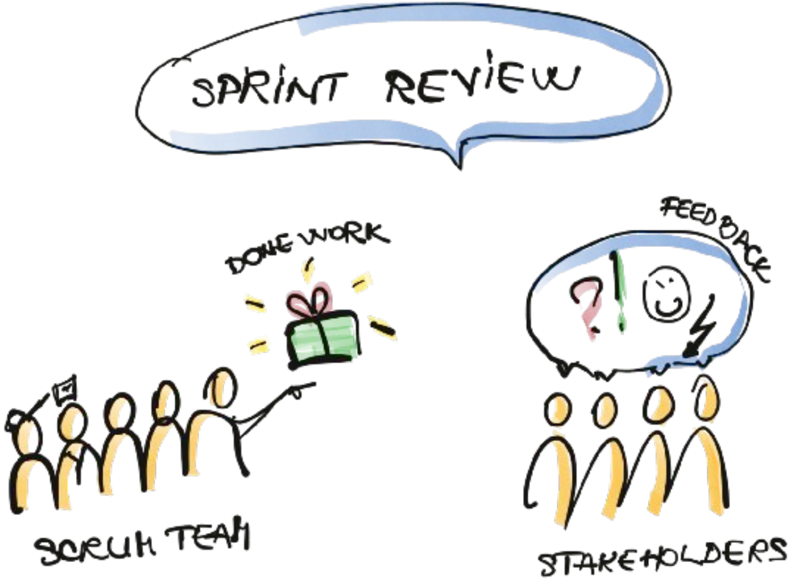
Jim Carpenter 10:41am
Wow! Great work, Ella!

Jon Ransom 10:41am
👍

Jim Carpenter 10:42am
Can you share your notes with us please?

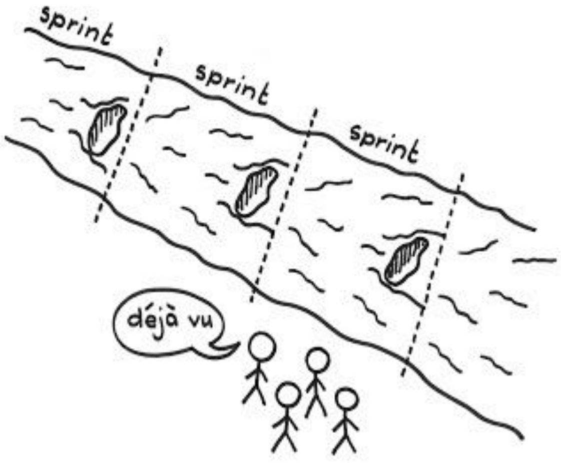
Ella Bridger 10:50am
Thanks guys! Yes, I'll attach the Evernote note that ex
Feel free to make comments in the note and we can

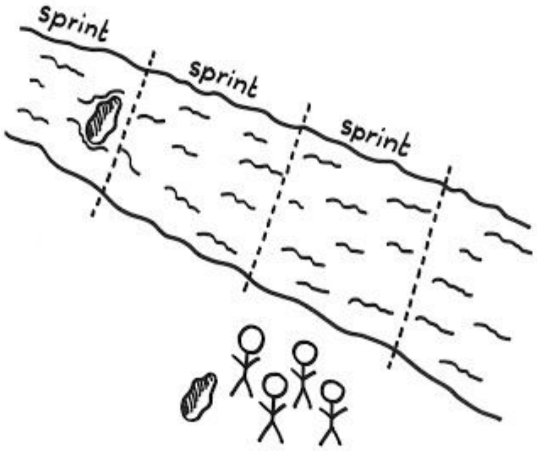
Sprint Review Meeting



Sprint Retrospectives

> "*At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.*"





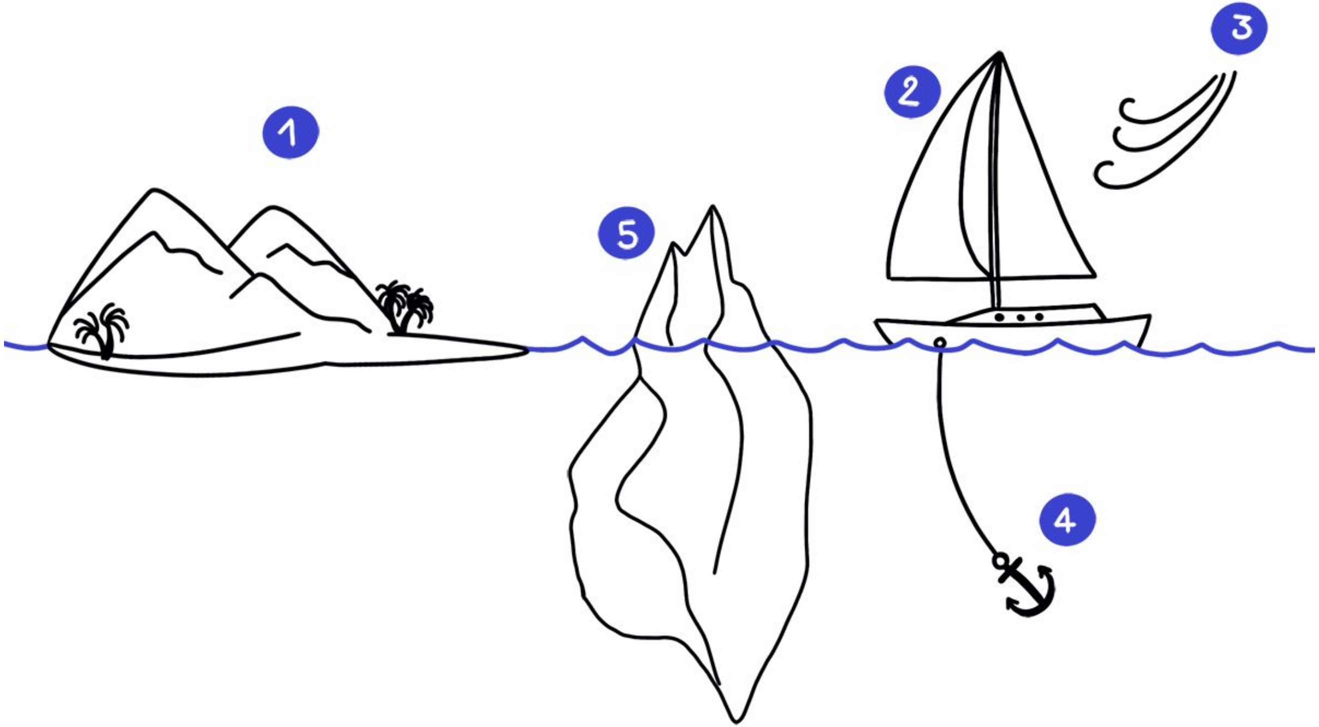
https://sites.google.com/a/scrumplop.org/published-patterns/value-stream/sprint/sprint-retrospective

START
STOP
CONTINUE

In a retrospective, ask team members what they'd like to start, stop and continue.

mountaingoatsoftware.com

Sprint Retrospectives: Sailboat Format

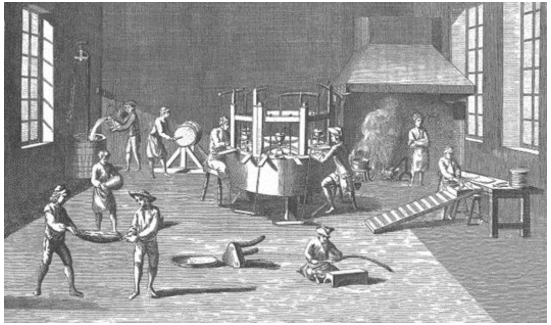


https://www.neatro.io/break-your-teams-fatigue-of-agile-retrospectives-with-the-sailboat-activity

Agile in Remote and Distributed Teams

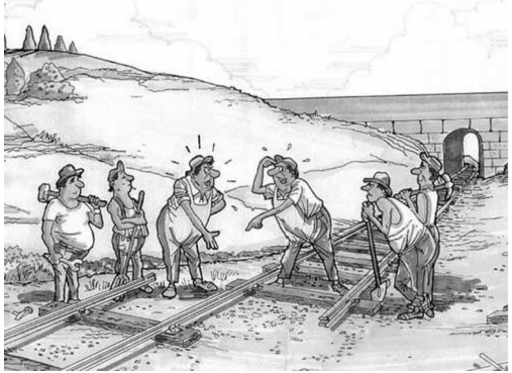
Can agile stay agile when we are not in the same room?

Recall: Successful projects require that their members …



… divide the work …

Agile:
<u>Organic teams</u>
over rigid hierarchy



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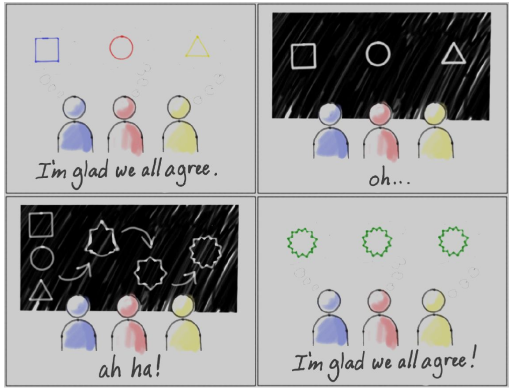
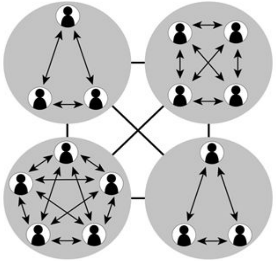


… achieve a shared understanding of the work to be done …

… and align their efforts

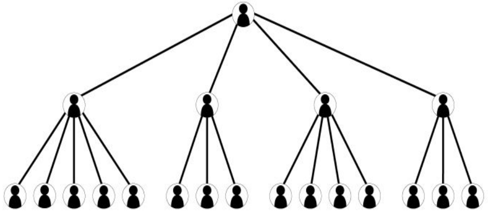
Organic Teams over Rigid Hierarchy

Agile teams function best when roles are flexible, responsibilities are shared, and coordination emerges through collaboration.



Organic approaches

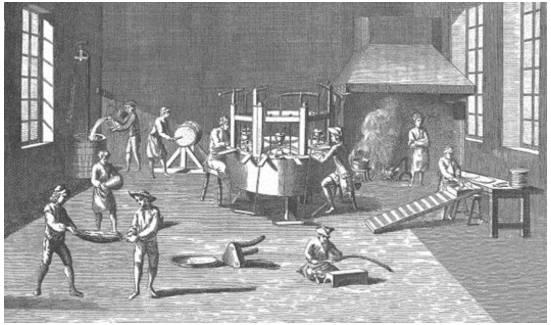
- Generalists (T-shaped)
- Self organized
- Decentralized
- Work is pulled



Rigid teams

- Specialization (I-shaped)
- Formalized
- Hierarchical
- Work is pushed

Recall: Successful projects require that their members …



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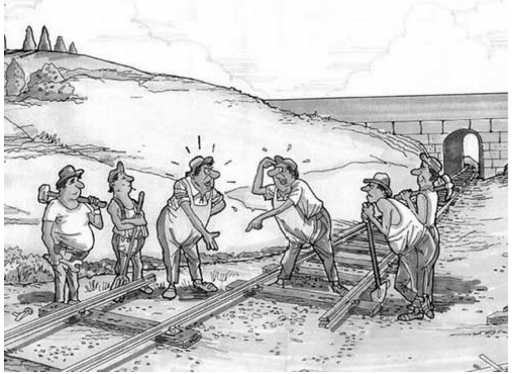
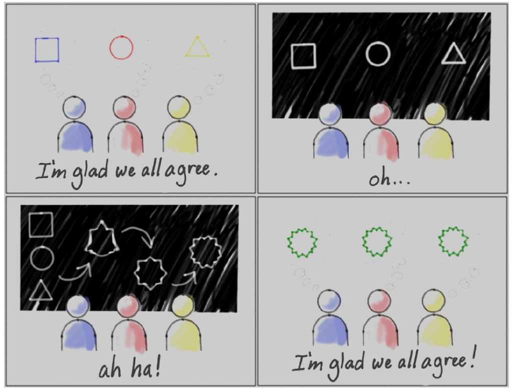
Organic teams
over rigid hierarchy



… coordinate their
activities and resources …

Agile:
Mutual adjustment and
shared representations
over rigid plans



… achieve a shared
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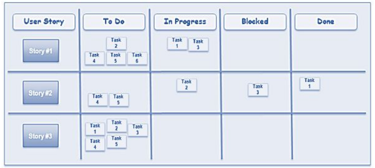
… and align their efforts

Mutual Adjustment & Shared Representations Over Rigid Plans

Agile teams coordinate work by continuously adjusting together and relying on shared, living artifacts



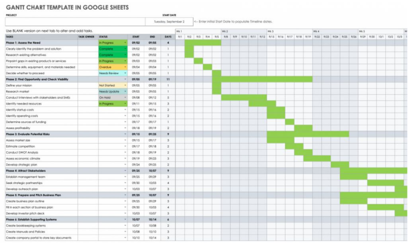
User Story	To Do	In Progress	Blocked	Done
Story #1	Task 2 Task 4 Task 5 Task 6	Task 1 Task 3		
Story #2	Task 4 Task 5	Task 2	Task 3	Task 1
Story #3	Task 1 Task 2 Task 3 Task 4 Task 5			

Mutual Adjustment

- Decisions made through real-time communication (scrum daily standups)

Shared Representations

- Everyone sees the same "source of truth" in real time (e.g., Kanban boards, backlogs, version control)



GANTT CHART TEMPLATE IN GOOGLE SHEETS

PROJECT

START DATE Tuesday, September 2 <-- Enter initial Start Date to populate Timeline dates.

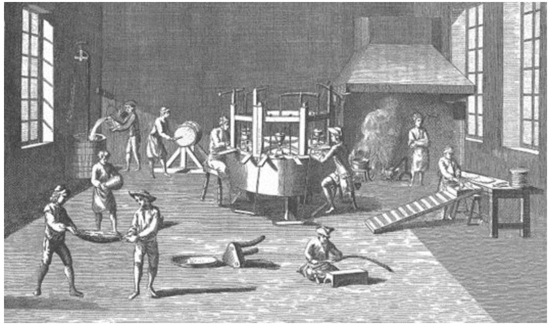
Use BLANK version on next tab to alter and add tasks.

TASKS	TASK OWNER	STATUS	START	END	DAYS
Phase 1: Assess the Need		In Progress	**09/02**	**09/05**	**4**
Clearly identify the problem and solution		Complete	09/02	09/02	1
Research existing alternatives		Complete	09/02	09/02	1
Pinpoint gaps in existing products or services		In Progress	09/03	09/03	1
Determine skills, equipment, and materials needed		Overdue	09/04	09/04	1
Decide whether to proceed		Needs Review	09/05	09/05	1
Phase 2: Find Opportunity and Check Viability			**09/05**	**09/19**	**11**
Define your mission		Not Started	09/05	09/05	1
Research market		Needs Update	09/05	09/05	1
Conduct interviews with stakeholders and SMEs		On Hold	09/08	09/12	5
Identify needed resources		In Progress	09/11	09/15	3
Identify startup costs			09/15	09/16	2
Identify operating costs			09/15	09/16	2
Determine sources of funding			09/17	09/17	1
Assess profitability			09/18	09/19	2
Phase 3: Evaluate Potential Risks			**09/15**	**09/25**	**9**
Assess market size			09/15	09/17	3
Estimate competition			09/17	09/18	2
Conduct SWOT Analysis			09/18	09/19	2
Assess economic climate			09/19	09/23	3
Develop strategic plan			09/24	09/25	2
Phase 4: Attract Stakeholders			**09/25**	**10/07**	**9**
Establish management team			09/25	09/29	3
Seek strategic partnerships			09/30	10/03	4
Develop outreach plan			10/03	10/07	3
Phase 5: Prepare and Pitch Business Plan			**09/25**	**10/07**	**9**
Create business plan outline			09/25	09/29	3
Fill in each section of business plan			09/30	10/03	4
Develop investor pitch deck			10/03	10/07	3
Phase 6: Establish Supporting Systems			**10/07**	**10/14**	**6**
Create bookkeeping systems			10/07	10/08	2
Create Manuals and Policies			10/08	10/10	3
Create company portal to store key documents			10/10	10/14	3

Plan-driven coordination

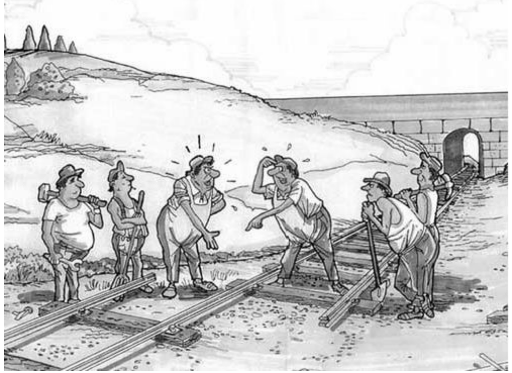
- Heavy up-front documentation
- Plans try to anticipate all tasks
- Change is costly and resisted
- Centralized updates

Recall: Successful projects require that their members …



… divide the work …

Agile:
Organic teams
over rigid hierarchy



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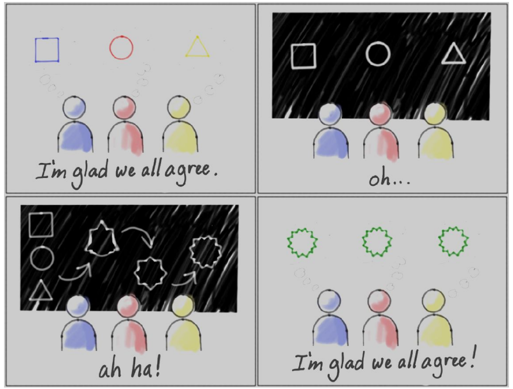


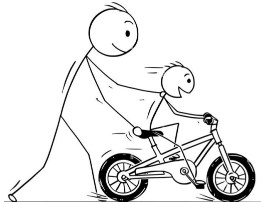
… achieve a shared
understanding of the work
to be done …

Agile:
Tacit knowledge sharing
over formal documentation

… and align their efforts

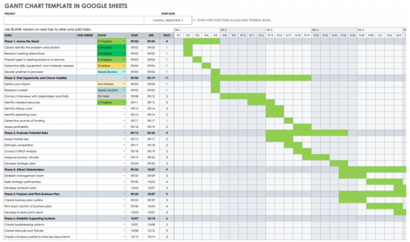
Tacit knowledge sharing over formal documentation

Agile values knowledge that flows through interaction and experience over static documentation



Tacit Knowledge Sharing

- Knowledge transmitted informally
- Built and refined through doing the work together
- Enables faster alignment and adaptation



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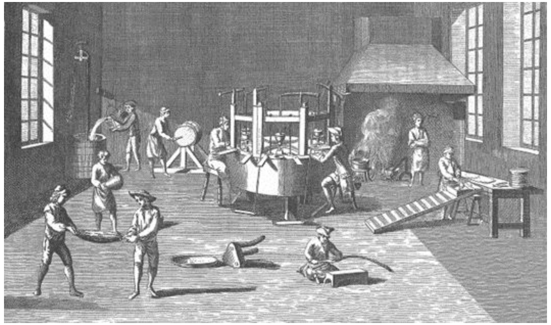
Create company portal to store key documents			10/10	10/14	3

Formal Documentation

- Heavy specs, design docs, handoffs
- Often written once and rarely updated
- Hard to keep aligned with actual work
- Slows responsiveness

Recall: Successful projects require that their members …



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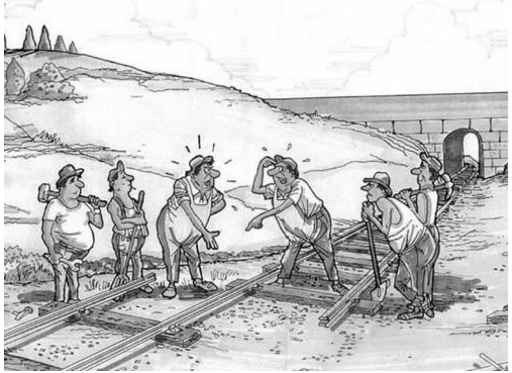

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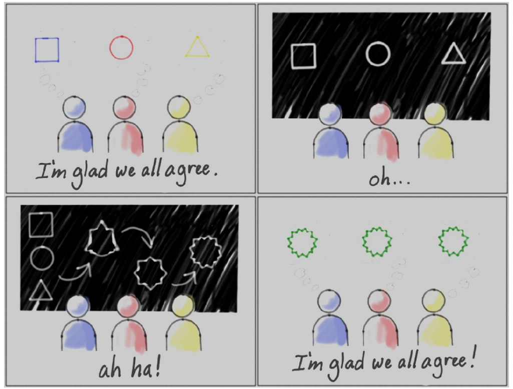

… achieve a shared understanding of the work to be done …

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Tacit knowledge sharing
over formal documentation

… and align their efforts

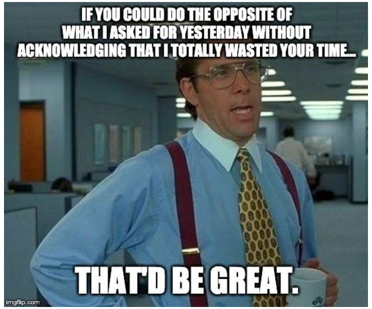
Agile:
Peer accountability
over top-down control

Peer accountability over top-down control

Agile teams rely on trust, shared norms, and self-regulation, rather than command-and-control structures.

Peer Accountability

- Work becomes visible
- Shared ownership of outcomes
- Team feedback drives improvement
- Internal motivation to contribute


IF YOU COULD DO THE OPPOSITE OF WHAT I ASKED FOR YESTERDAY WITHOUT ACKNOWLEDGING THAT I TOTALLY WASTED YOUR TIME...
THAT'D BE GREAT.
imgflip.com

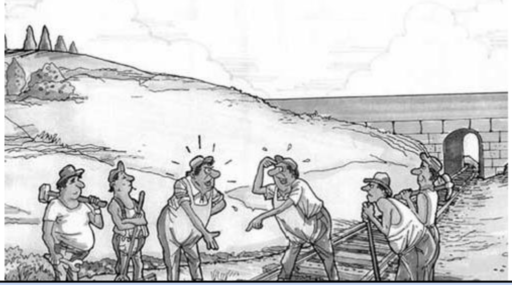
Top-Down Control

- Authority enforces compliance
- Tasks assigned by managers
- Accountability flows upward
- Relies on status reports, supervision, approvals

Recall: Successful projects require that their members …

… divide the work …

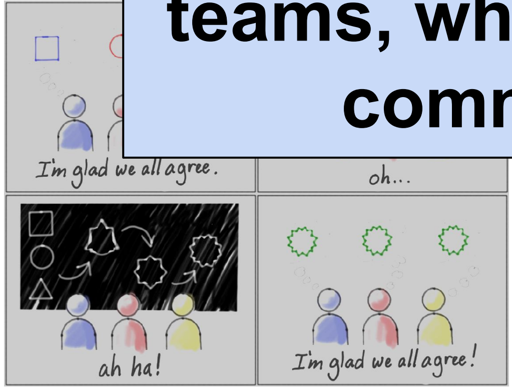
Agile:
Organic teams



… coordinate their
activities and resources …

Agile:
Mutual adjustment and
tions
s

Scrum practices were designed for co-located teams, where frequent, informal, face-to-face communication happens naturally.



understanding of the work
to be done …

Agile:
Tacit knowledge sharing
over formal documentation

rts

Agile:
Peer accountability
over top-down control

Breakout Activity: Agile at a Distance

- Discuss the following four Agile pillars:
    - **Organic teams**
    - **Mutual adjustment & Shared representations**
    - **Tacit knowledge sharing**
    - **Peer accountability**
- For each one:
    - What could go wrong in remote, distributed teams with time-zone and cultural differences?
    - How might it impact Scrum practices?
    - Can you think of one mitigation strategy or tool?
- Answer on Slack (#lectures)

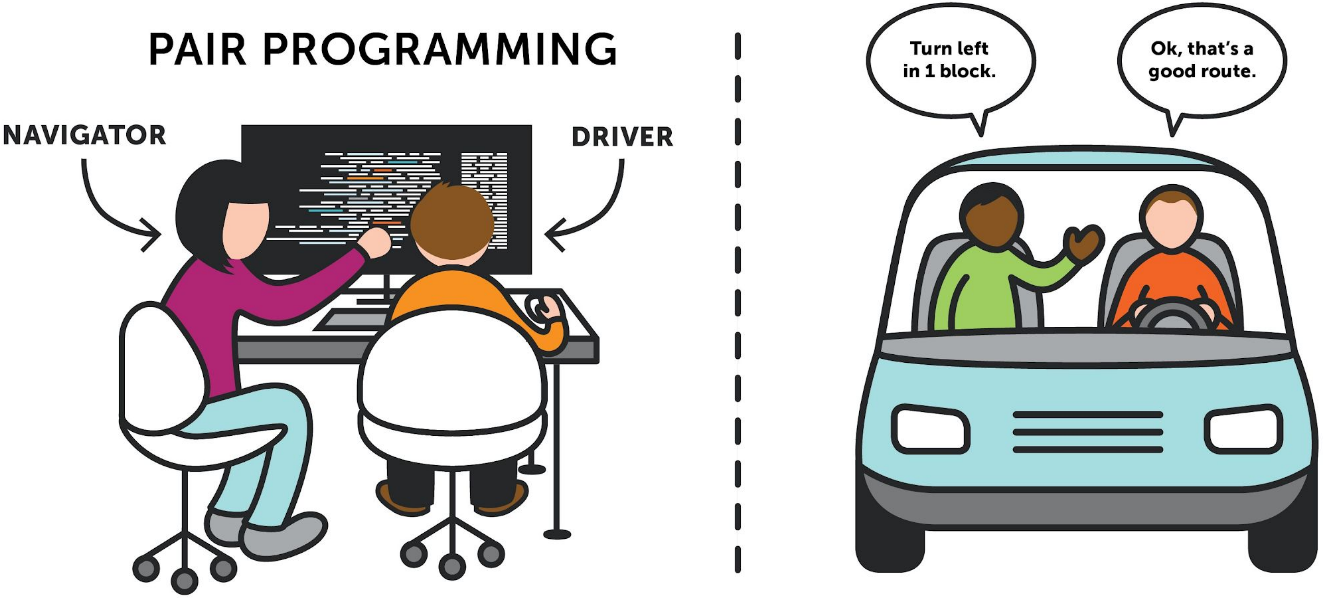
Distributed Scrum (some tips)

Mutual trust, communication, collaboration

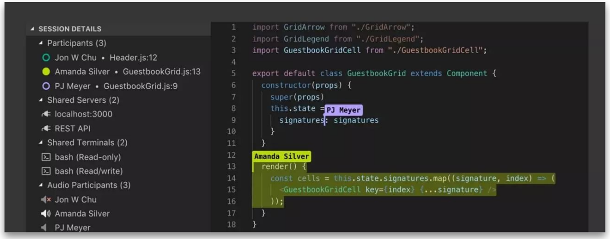
- Asynchronous communication is key in remote environments
  - Slack thread as a *“continuous daily standup” (I’m doing X, gone to bed, etc)*
  - Zoom meeting where breakout rooms are for individual work and main room for socializing (simulate an office)
- Pair programming to share knowledge
- Focus on making some progress as a team (even if it is tiny)
- Over communicate decisions
- Invest in team building

https://www.atlassian.com/agile/scrum/distributed-scrum

Pair Programming



Remote Pair Programming

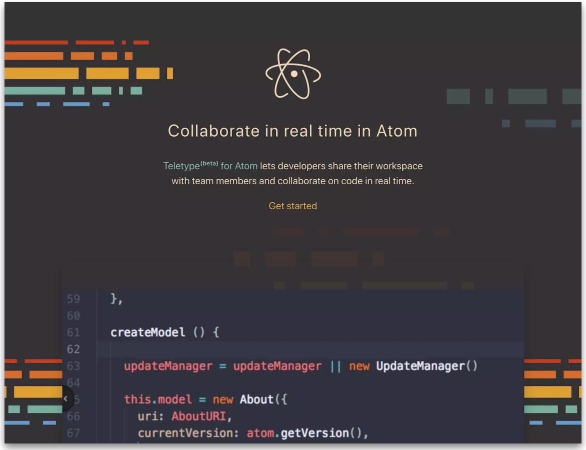


SESSION DETAILS

- Participants (3)
  - ○ Jon W Chu • Header.js:12
  - ● Amanda Silver • GuestbookGrid.js:13
  - ○ PJ Meyer • GuestbookGrid.js:9
- Shared Servers (2)
  - localhost:3000
  - REST API
- Shared Terminals (2)
  - bash (Read-only)
  - bash (Read/write)
- Audio Participants (3)
  - Jon W Chu
  - Amanda Silver
  - PJ Meyer

```
import GridArrow from "./GridArrow";
import GridLegend from "./GridLegend";
import GuestbookGridCell from "./GuestbookGridCell";

export default class GuestbookGrid extends Component {
  constructor(props) {
    super(props)
    this.state =
      signatures: signatures
    }
  }

  render() {
    const cells = this.state.signatures.map((signature, index) => (
      <GuestbookGridCell key={index} {...signature} />
    ));
  }
}
```

Visual Studio Live Share



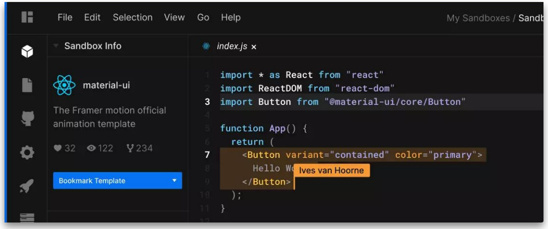
Collaborate in real time in Atom

Teletype$^{(beta)}$ for Atom lets developers share their workspace with team members and collaborate on code in real time.

Get started

```
},

createModel () {

  updateManager = updateManager || new UpdateManager()

  this.model = new About({
    uri: AboutURI,
    currentVersion: atom.getVersion(),
```

Teletype for Atom



material-ui

The Framer motion official animation template

♥ 32 👁 122 ⑂ 234

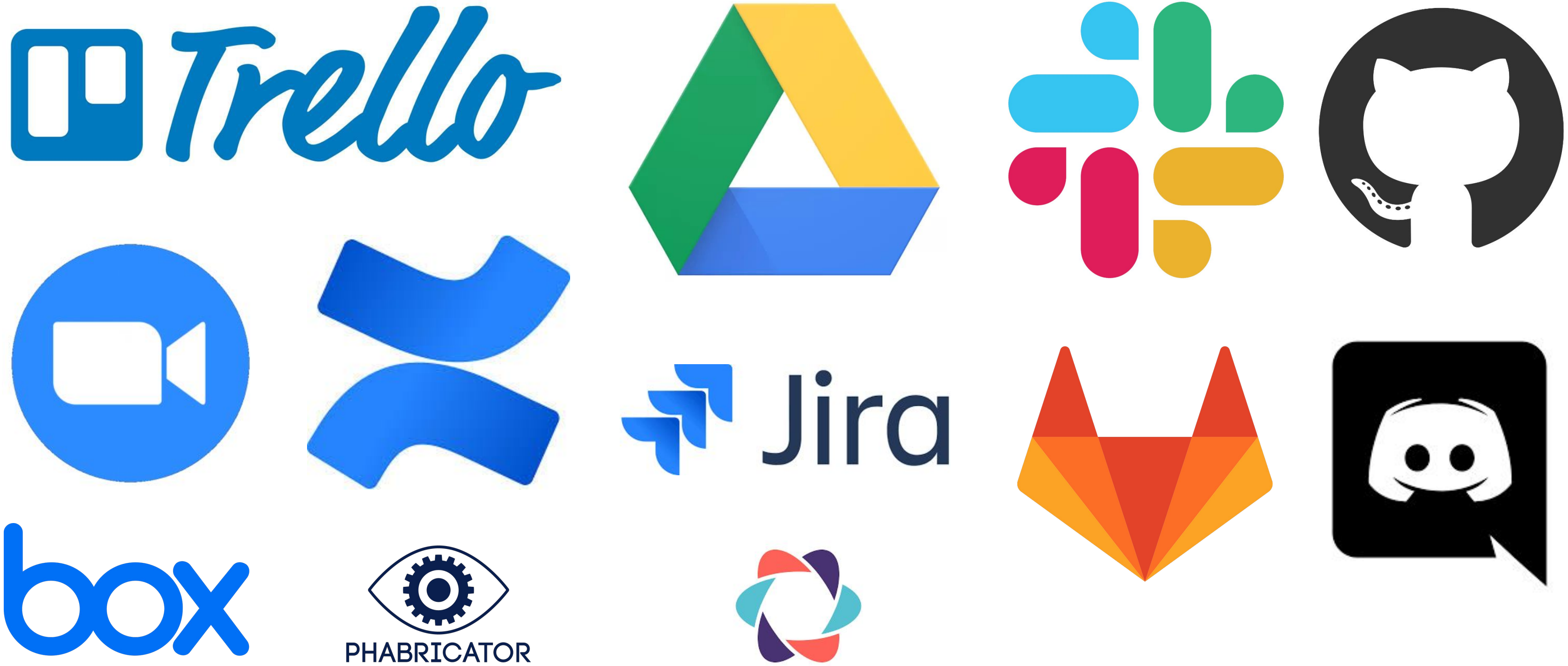
```
import * as React from "react"
import ReactDOM from "react-dom"
import Button from "@material-ui/core/Button"

function App() {
  return (
    <Button variant="contained" color="primary">
      Hello Wo
    </Button>
  );
}
```

CodeSandbox

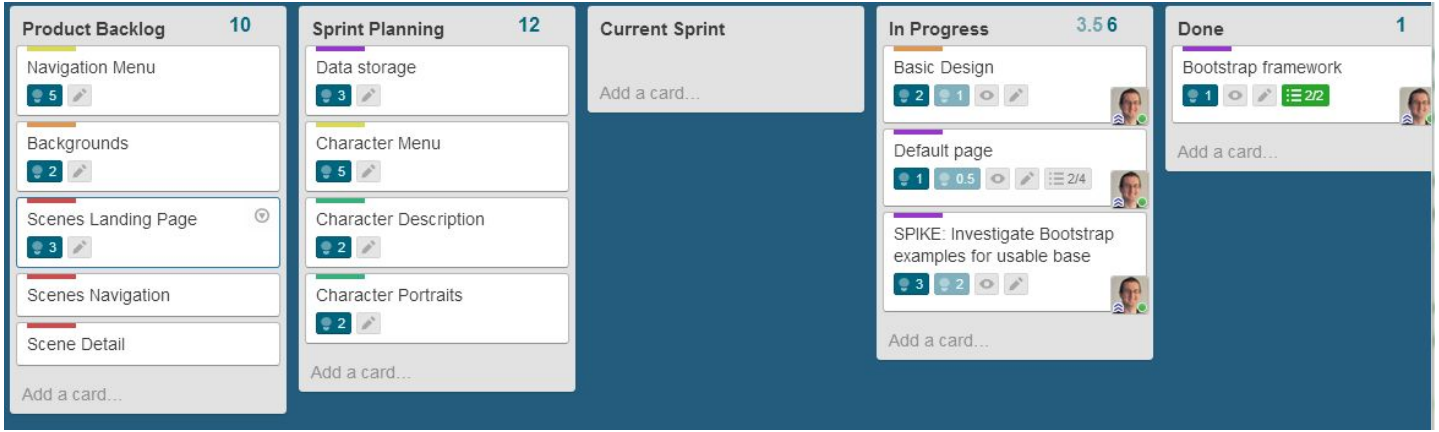
https://www.sitepoint.com/collaborative-coding-tools-for-remote-pair-programming

Tools for Scrum

Use tools to enhance your process



Trello



Product Backlog 10

- Navigation Menu 5
- Backgrounds 2
- Scenes Landing Page 3
- Scenes Navigation
- Scene Detail

Add a card...

Sprint Planning 12

- Data storage 3
- Character Menu 5
- Character Description 2
- Character Portraits 2

Add a card...

Current Sprint

Add a card...

In Progress 3.5 6

- Basic Design 2 1
- Default page 1 0.5 2/4
- SPIKE: Investigate Bootstrap examples for usable base 3 2

Add a card...

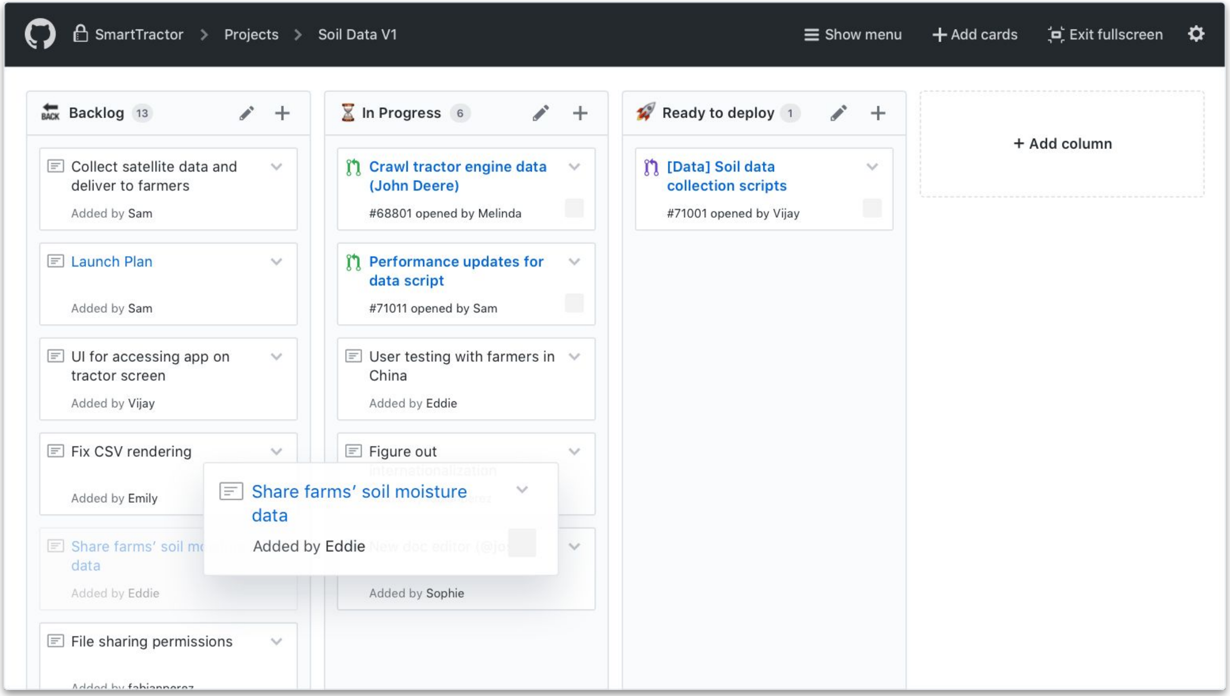
Done 1

- Bootstrap framework 1 2/2

Add a card...

https://trello.com/power-ups/597cbecff4fe5f1d91d4b614/planning-poker
https://jasonstcyr.com/2013/11/11/how-to-set-up-trello-board-for-scrum

GitHub Projects



Backlog

- Collect satellite data and deliver to farmers — Added by Sam
- Launch Plan — Added by Sam
- UI for accessing app on tractor screen — Added by Vijay
- Fix CSV rendering — Added by Emily
- Share farms' soil moisture data — Added by Eddie
- File sharing permissions — Added by fabianperez

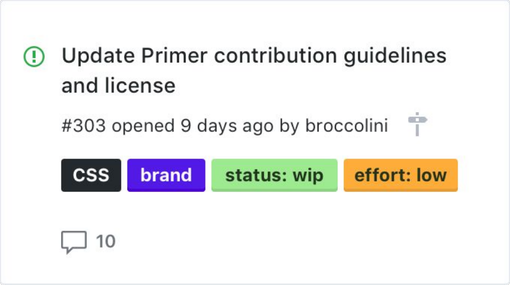
In Progress

- Crawl tractor engine data (John Deere) — #68801 opened by Melinda
- Performance updates for data script — #71011 opened by Sam
- User testing with farmers in China — Added by Eddie
- Figure out internationalization
- New doc editor (@jo — Added by Sophie

Ready to deploy

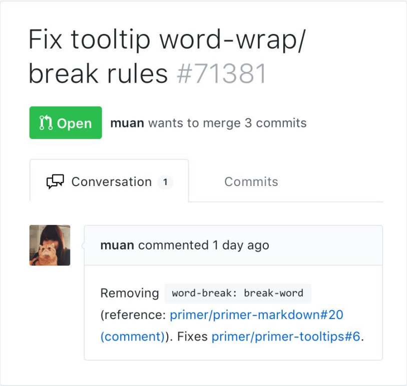
- [Data] Soil data collection scripts — #71001 opened by Vijay

Share farms' soil moisture data
Added by Eddie



Update Primer contribution guidelines and license

#303 opened 9 days ago by broccolini



Fix tooltip word-wrap/ break rules #71381

muan wants to merge 3 commits

muan commented 1 day ago

Removing `word-break: break-word` (reference: primer/primer-markdown#20 (comment)). Fixes primer/primer-tooltips#6.

https://github.com/features/project-management

Teams!

Team Citizenship

- Be responsive and responsible
- Join meetings on time, participate actively
- Stick to commitments, work on assigned tasks
- When problems, reach out, replan, communicate early, be proactive (Replanning and dealing with mistakes is normal)

Team Citizenship

We will intervene if complains about

- Lack of communication
- Disrespectful or dismissive communication
- Not attending team meetings (without excuse)
- Blowing internal deadlines without communication
- Failing to complete agreed tasks without timely communication

Breakout: First short team meeting

- Find time for first official team meeting
- Agree on primary communication until team meeting
- Pick a team name (use GenAI if needed), post team name and tag all group members on slack in #social