Towards Better Understanding of Agile Values in Global Software Development

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Agenda

- Global Software Development
- Agile Software Development
- Method Rationale
- Rationale and Agile Values in GSD

Global Software Development

- Distance
  - Geographical
  - Temporal
  - Socio-technical

- Impacts processes of
  - Communication
  - Coordination
  - Control

Agile Methods

- Lightweight approaches
- "Just enough method"
- Seemingly contradictory to GSD
  - On-site customer
  - Face-to-face communication emphasized
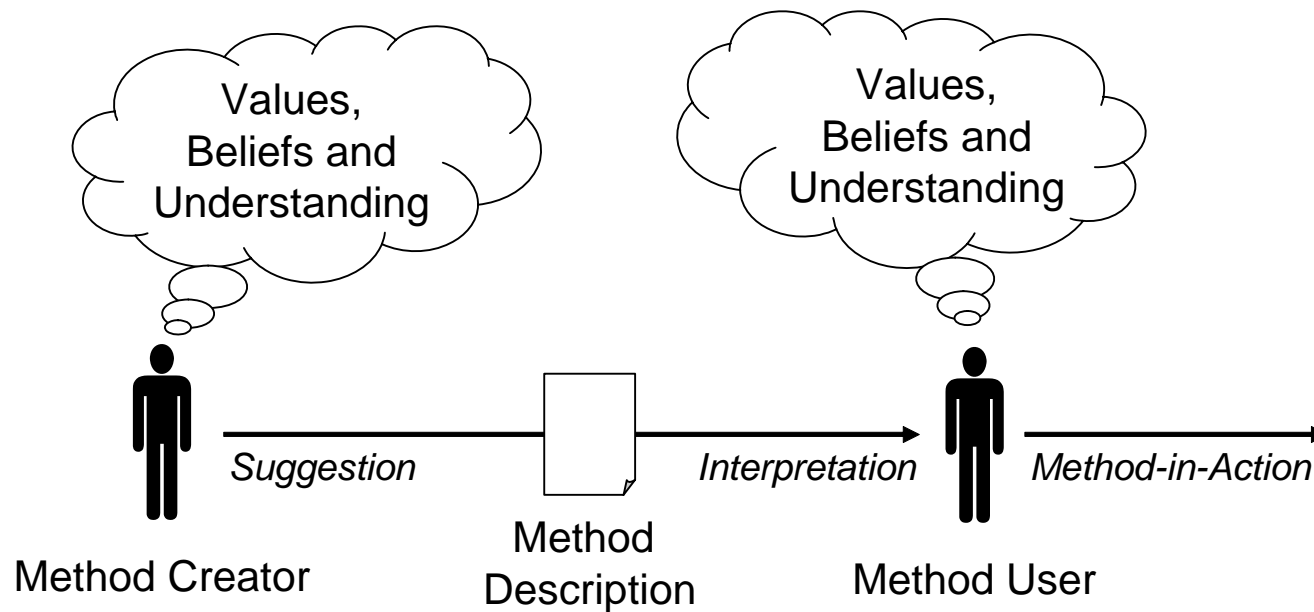 - Aggressive release schedules
  - …

Method Rationale

- Reasons behind method prescriptions
- Reasons for adaptations of methods
- Important for understanding why a method prescribes something and for being able to rationally choose whether or not to follow a prescription – Rationality Resonance

Methods as Action Knowledge

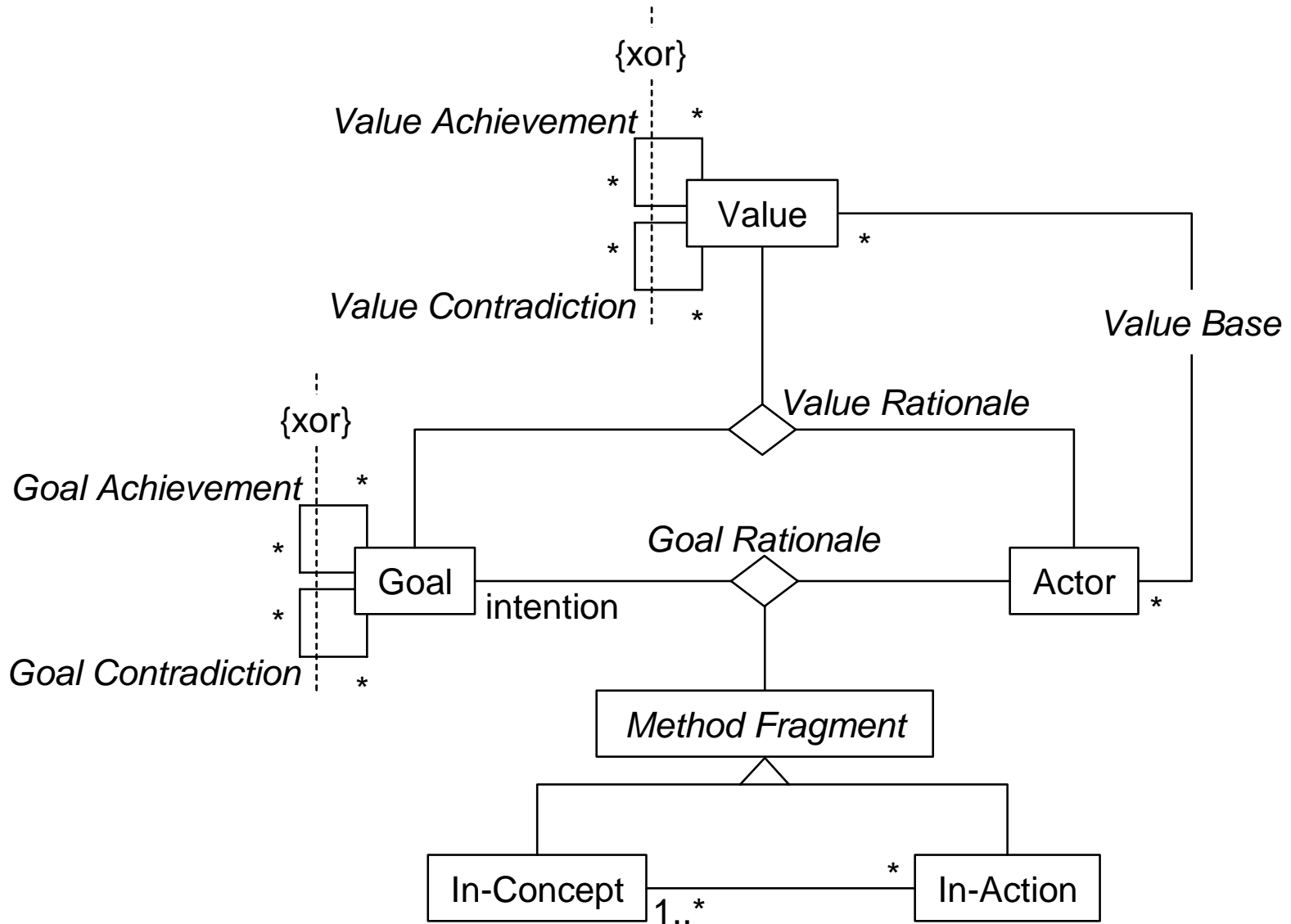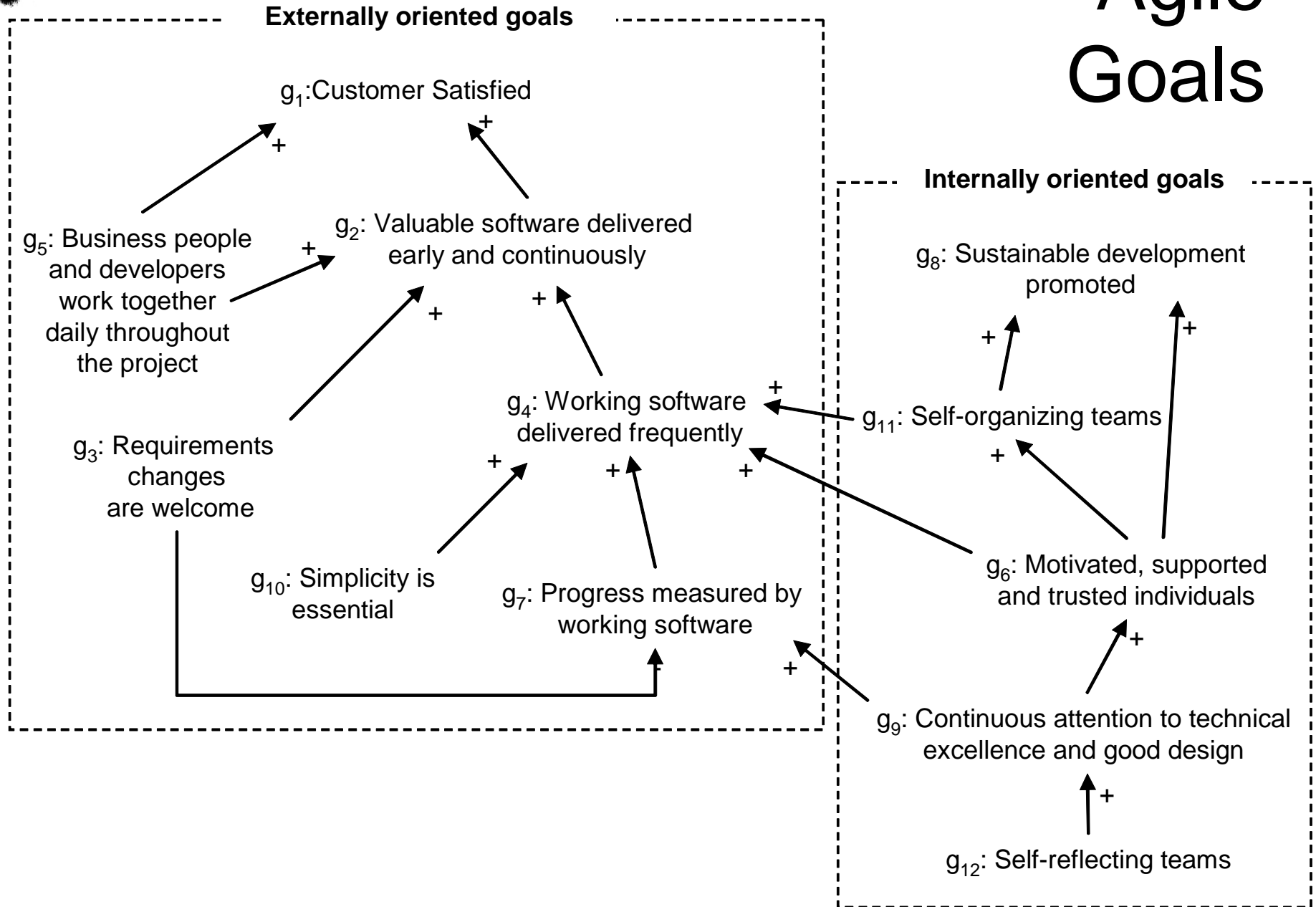# Goals and Values

{xor}

Value Achievement

Value Contradiction

Value

Value Base

Value Rationale

{xor}

Goal Achievement

Goal Contradiction

Goal

intention

Goal Rationale

Actor

Method Fragment

In-Concept

1..*

In-Action

Agile Goals

Externally oriented goals

g₁:Customer Satisfied

g₅: Business people and developers work together daily throughout the project

g₂: Valuable software delivered early and continuously

g₃: Requirements changes are welcome

g₄: Working software delivered frequently

g₁₀: Simplicity is essential

g₇: Progress measured by working software

Internally oriented goals

g₈: Sustainable development promoted

g₁₁: Self-organizing teams

g₆: Motivated, supported and trusted individuals

g₉: Continuous attention to technical excellence and good design

g₁₂: Self-reflecting teams

Goals　　　　**Value Rationale**　　　　**Values**

g$_1$: Customer Satisfied

g$_2$: Valuable software delivered
early and continuously

g$_5$: Business people and developers work
together daily throughout the project

g$_3$: Requirements
changes are welcome

g$_4$: Working software
delivered frequently

g$_7$: Progress measured by
working software

g$_{10}$: Simplicity is
essential

g$_8$: Sustainable development
promoted

g$_{11}$: Self-organizing teams

g$_6$: Motivated, supported
and trusted individuals

g$_9$: Continuous attention to technical
excellence and good design

g$_{12}$: Self-reflecting teams

v$_2$: Working software over
comprehensive documentation

v$_3$: Customer collaboration
over contract negotiation

v$_4$: Responding to change
over following a plan

v$_1$: Individuals and interactions　　+
over processes and tools

v$_5$: Face-to-face
conversations preferred

	Goals	Goal Rationale	XP Fragments

g_5: Business people and developers work together daily throughout the project

g_3: Requirements changes are welcome

f_1: The planning game

f_2: On-site customer

g_4: Working software delivered frequently

f_3: Continuous integration

g_7: Progress measured by working software

+

g_{10}: Simplicity is essential

+

g_6: Motivated, supported and trusted individuals

+

g_{14}: Knowledge sharing facilitated

g_{13}: All code reviewed

f_4: Pair programming
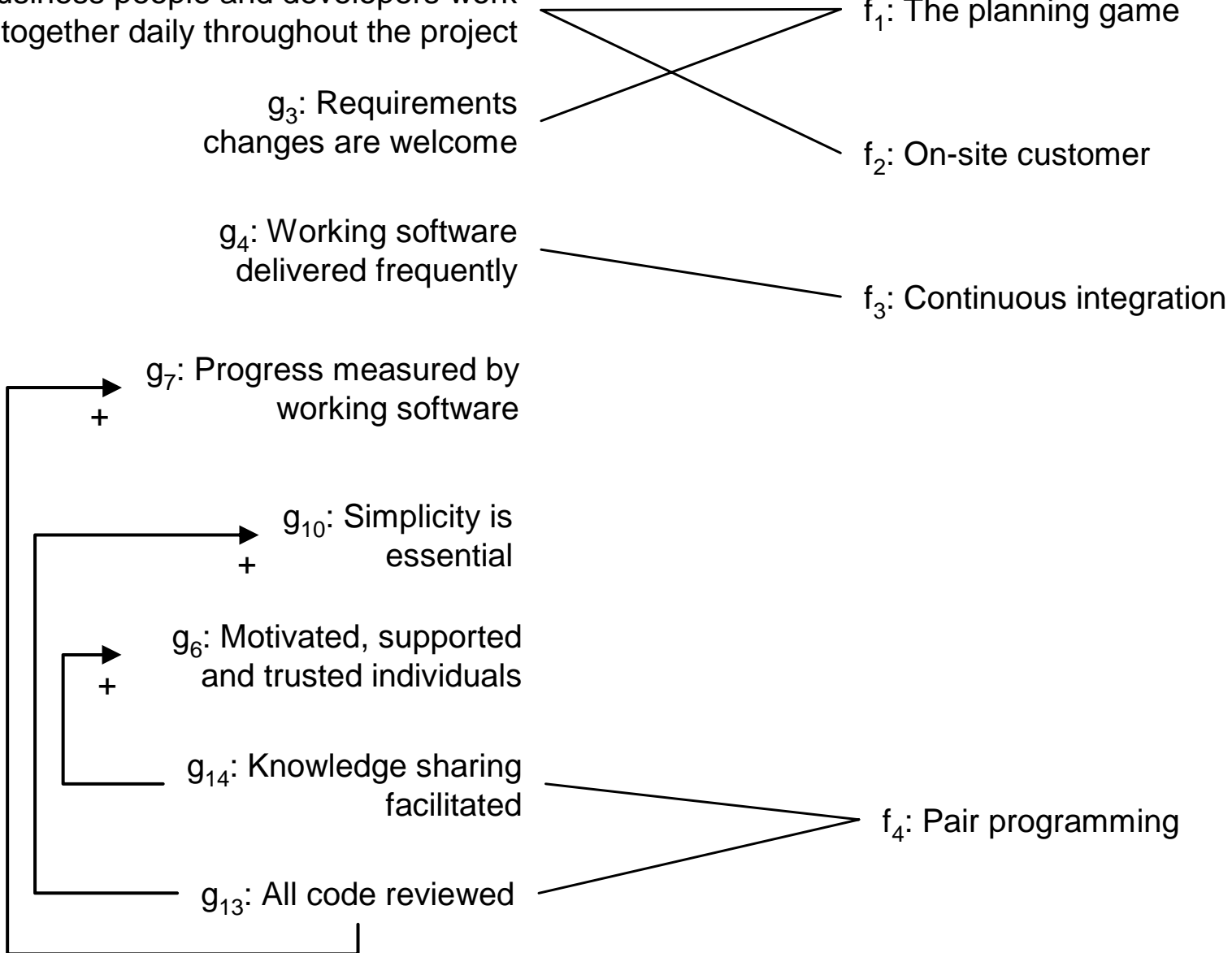
Agile Method Fragments in GSD

- Analysis of the use of agile method fragments in GSD
- GSD Goal: Reduce Distance!
- E.g. Pair Programming
  - Reduces *temporal distance*
  - Increases knowledge sharing, hence reduces *socio-cultural distance*

Achieving Agile Values

- Finding alternative ways of operationalizing agile values in goals and specific GSD method fragments
  - E.g. "on-site customer" not the only way to get business people and developers to work together, perhaps.
- Tailoring existing agile method fragments to a GSD context
  - E.g. Stand-up meetings to hand over work between sites

Conclusion

- Understanding the goals of agile methods and the values these reflect is important in order to understand why certain method fragments are suggested

- It could be used to
  - understand why particular agile method fragments apply (or not) in GSD
  - formulate alternative method fragments suitable for GSD that operationalize agile values

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