Design Patterns: Observer und MVC

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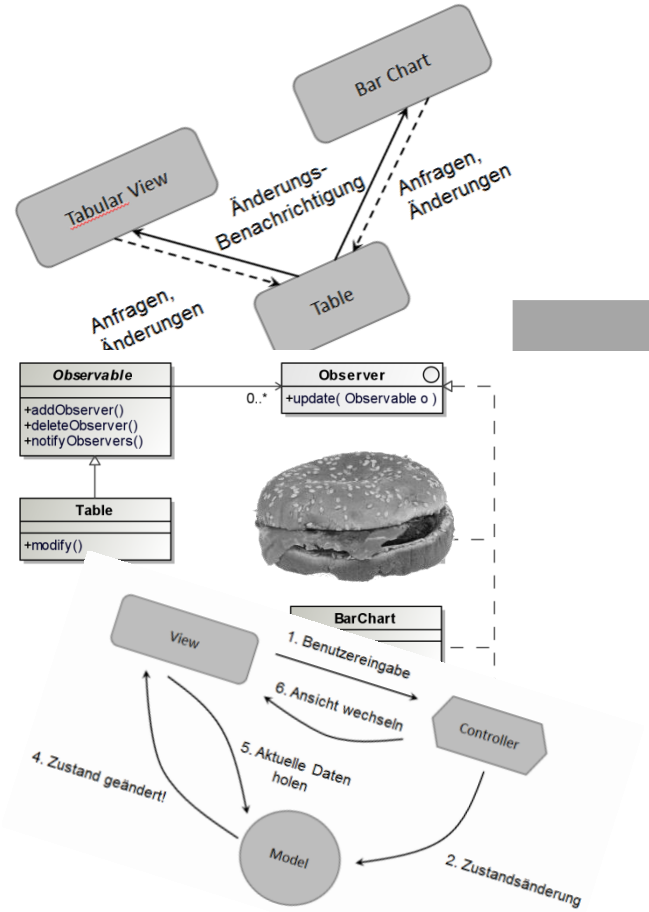
Überblick

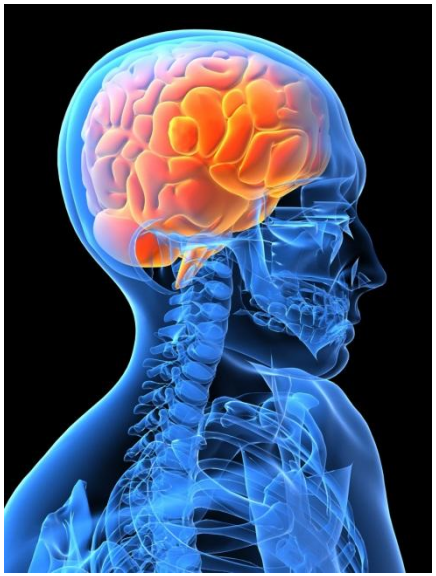
Was dieses Video behandelt

- Die Idee von Design Patterns
- Observer Pattern
- Model View Controller Pattern
  - Observer
  - Strategy
  - Composite

Die Idee von Design Patterns



Design Pattern



Entwickler

```
ublic class EventFrame extends JFrame {

    private static final long serialVersionUID= 1L;

    private JButton fOk;

    private JSlider fSlider;

    private JTextField fText;

    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                showFrame();
            }
        });
    }

    private static void showFrame() {
        new EventFrame().setVisible(true);
    }

    public EventFrame() throws HeadlessException {
        setTitle("Event Handling");
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        createContent();
        addEventListener();
    }

    private void createContent() {
        JPanel panel= new JPanel();
        getContentPane().add(panel);
        panel.add(fOk= new JButton("Ok"));
        panel.add(fSlider= new JSlider(0, 10, 5));
        panel.add(fText= new JTextField(10));
        pack();

        e void addEventListener() {
```

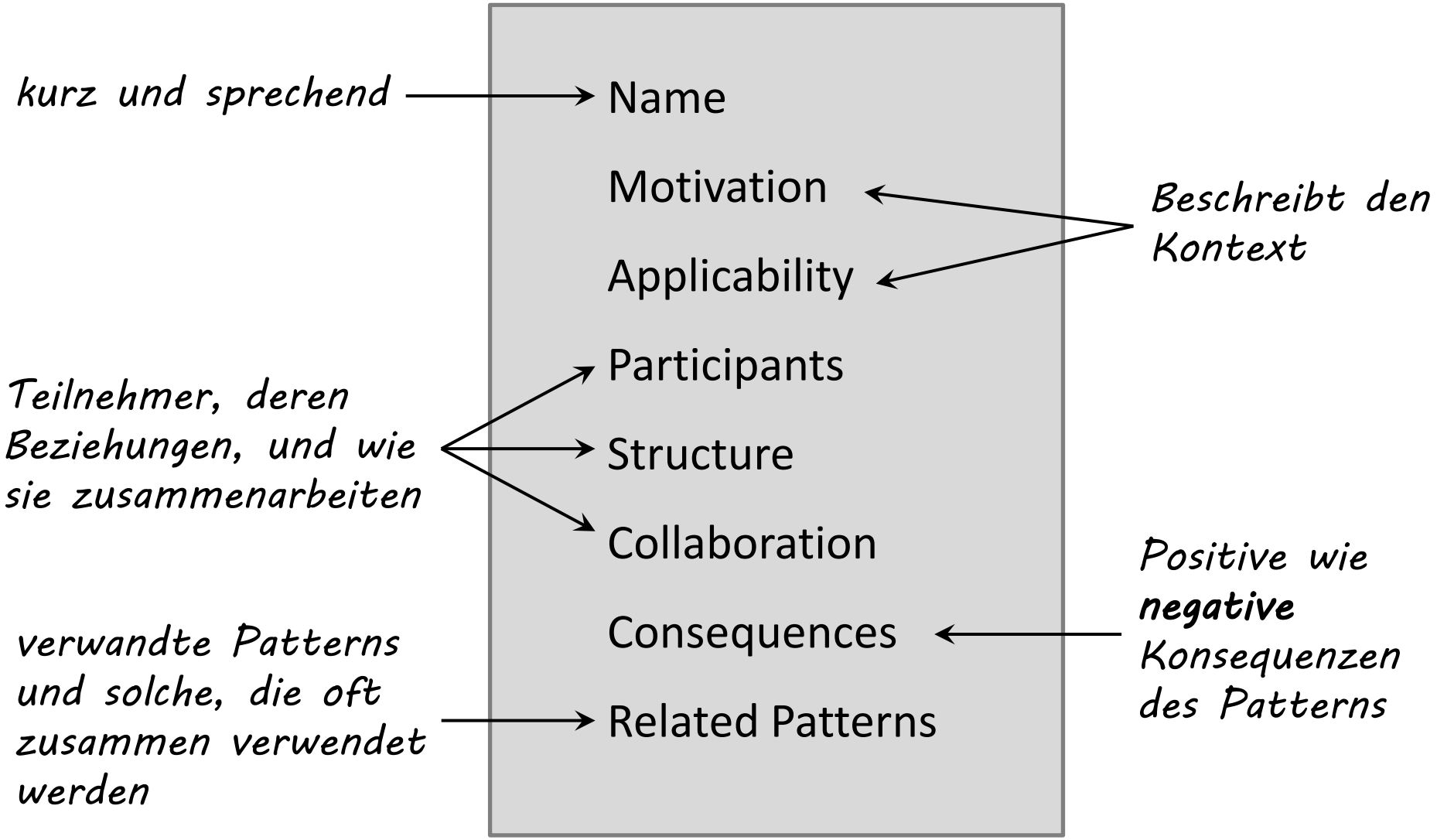
Software

Design Pattern Definition

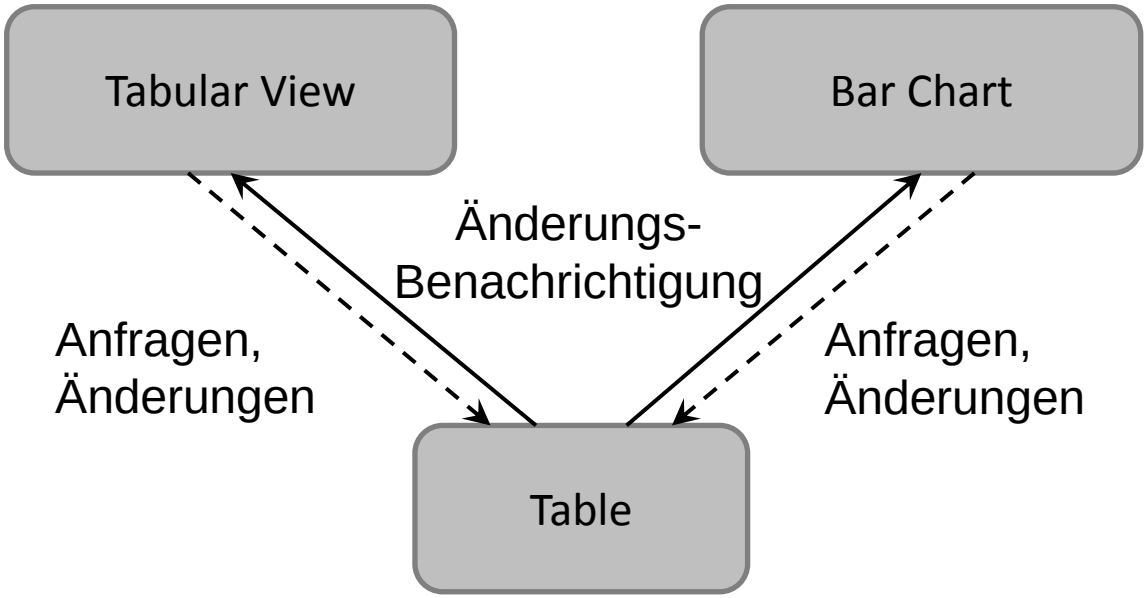
A Design Pattern is a solution to a problem in a context

- Context
  - Situation, in der das Pattern anwendbar ist
- Problem
  - Beschreibt Ziele und Einschränkungen, die aus dem Kontext entstehen
- Solution
  - Eine Lösung die das Ziel unter den gegebenen Einschränkungen erreicht.

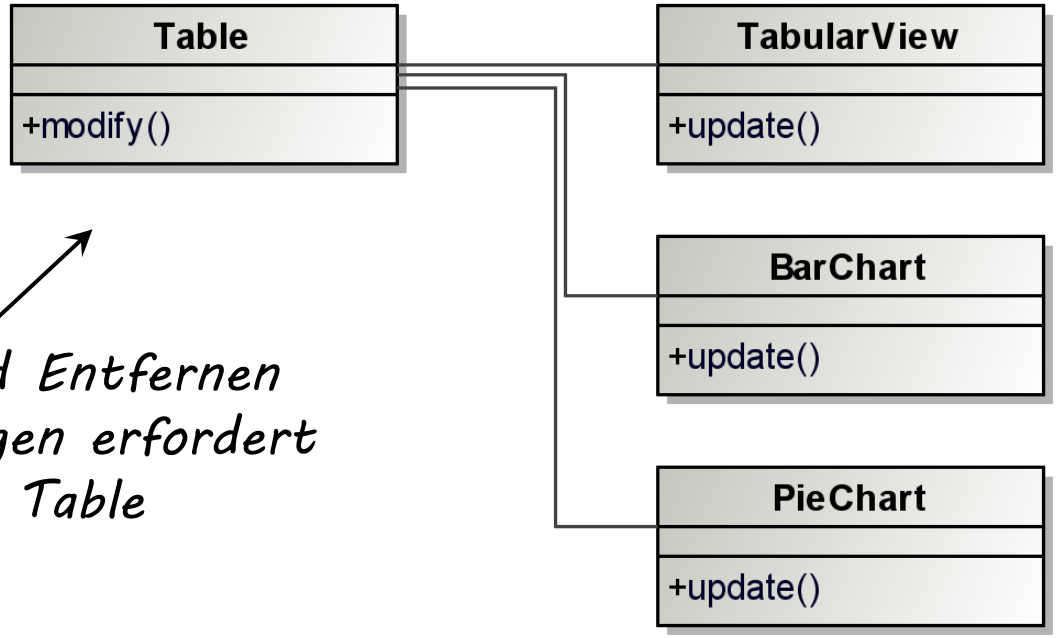
Design Pattern Bestandteile



Das Observer-Pattern



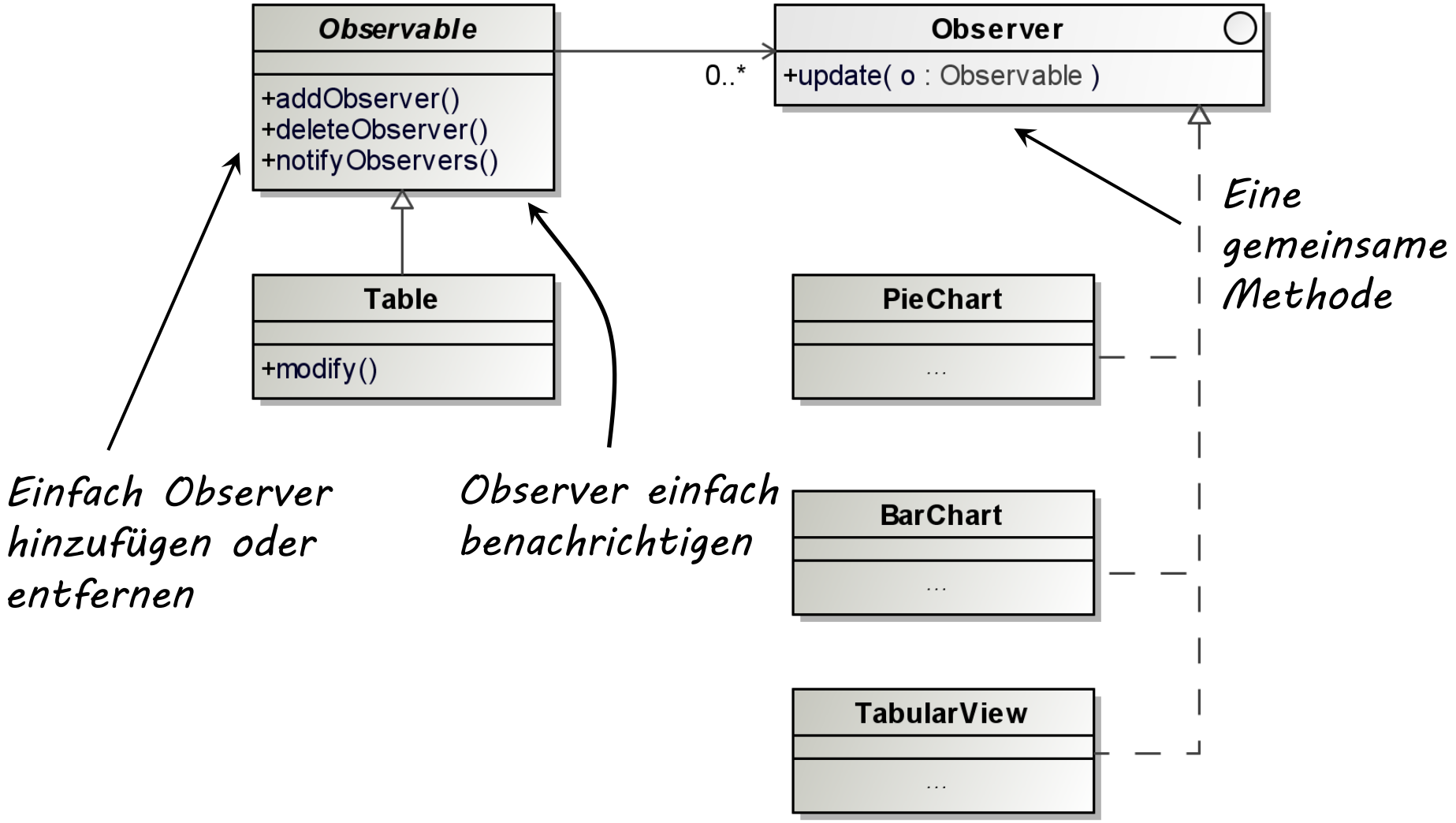
Starre Lösung



Hinzufügen und Entfernen von Darstellungen erfordert Änderungen an Table

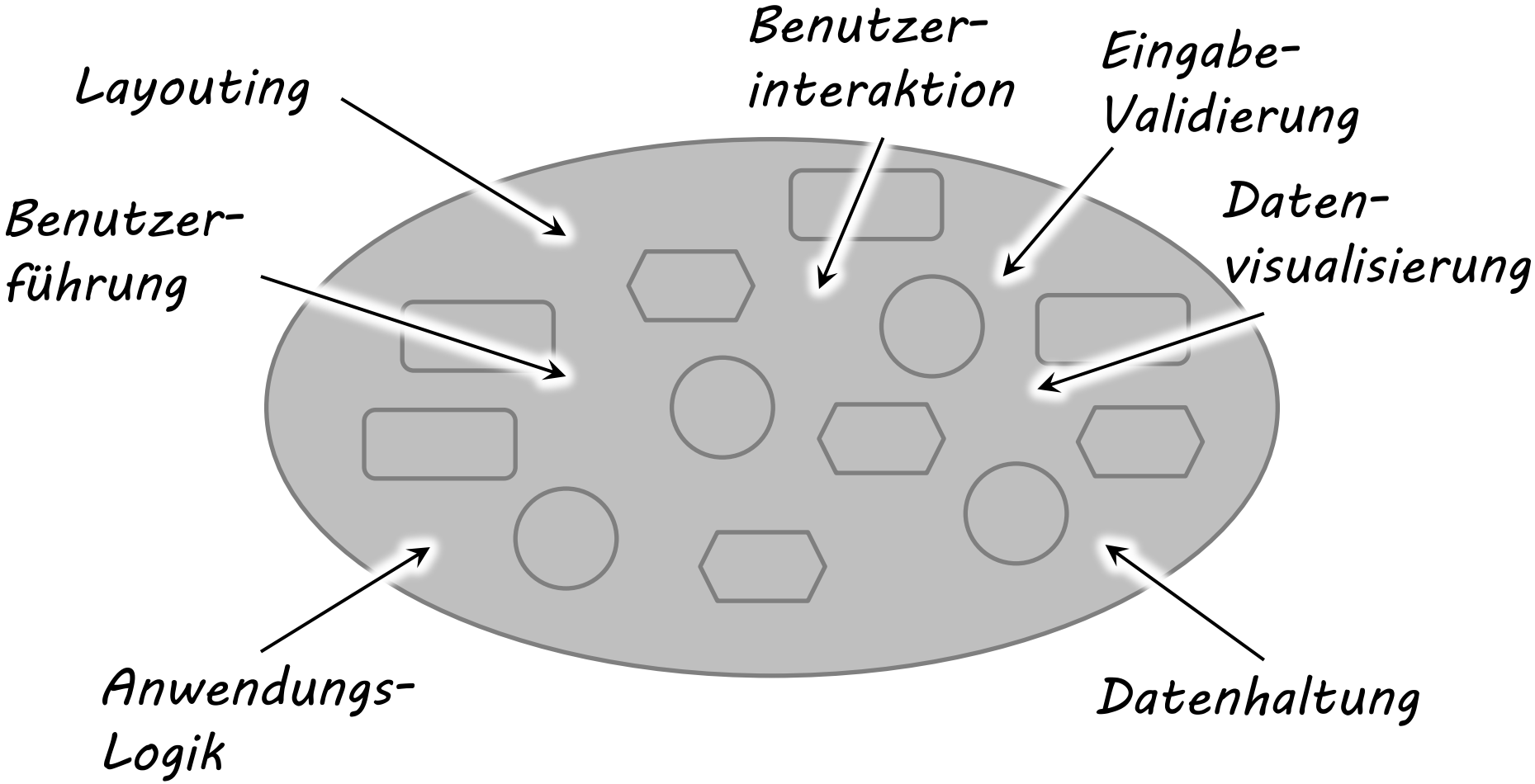
Die update-Methode kommt drei mal vor

Flexible Lösung

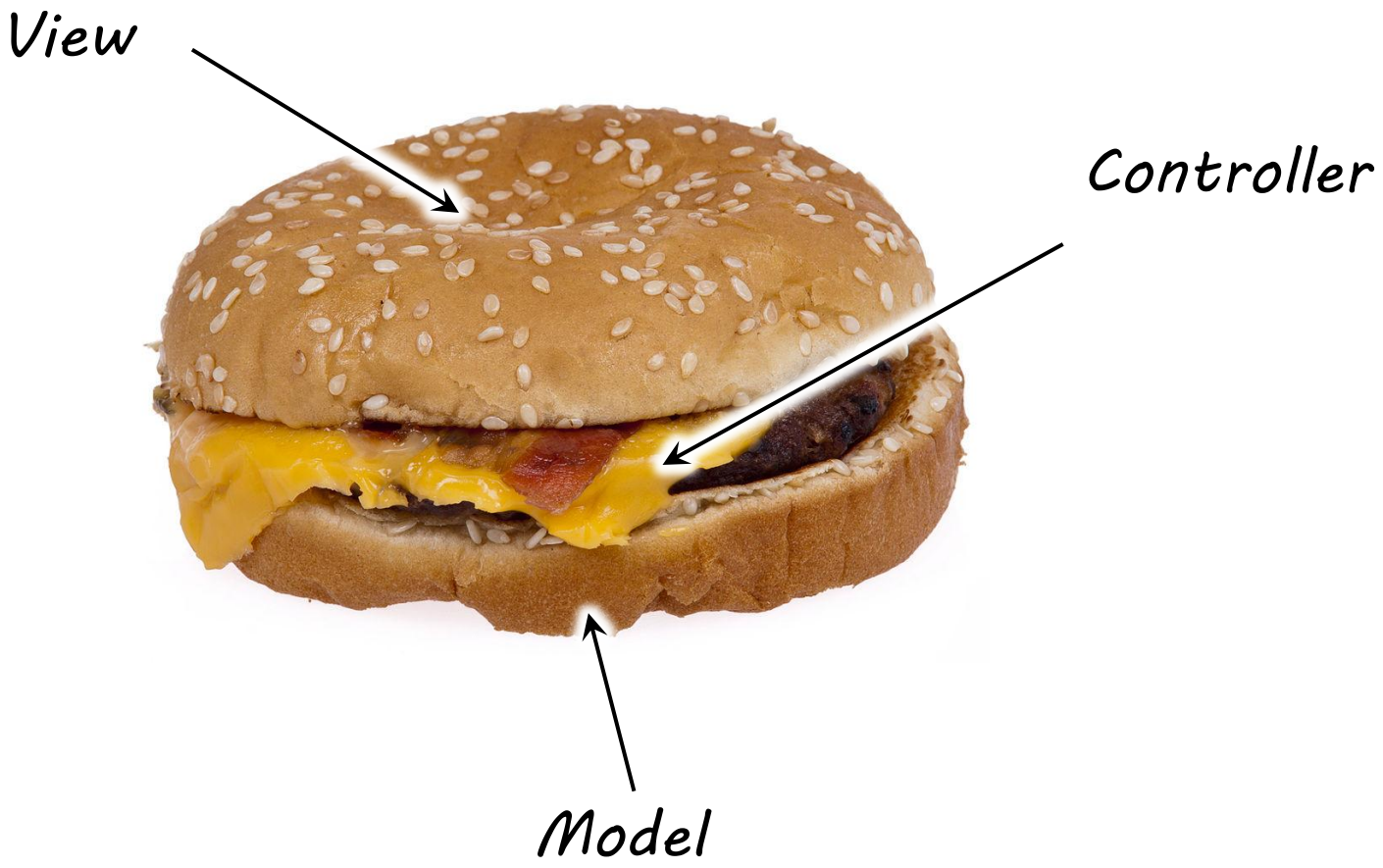


Das MVC-Pattern

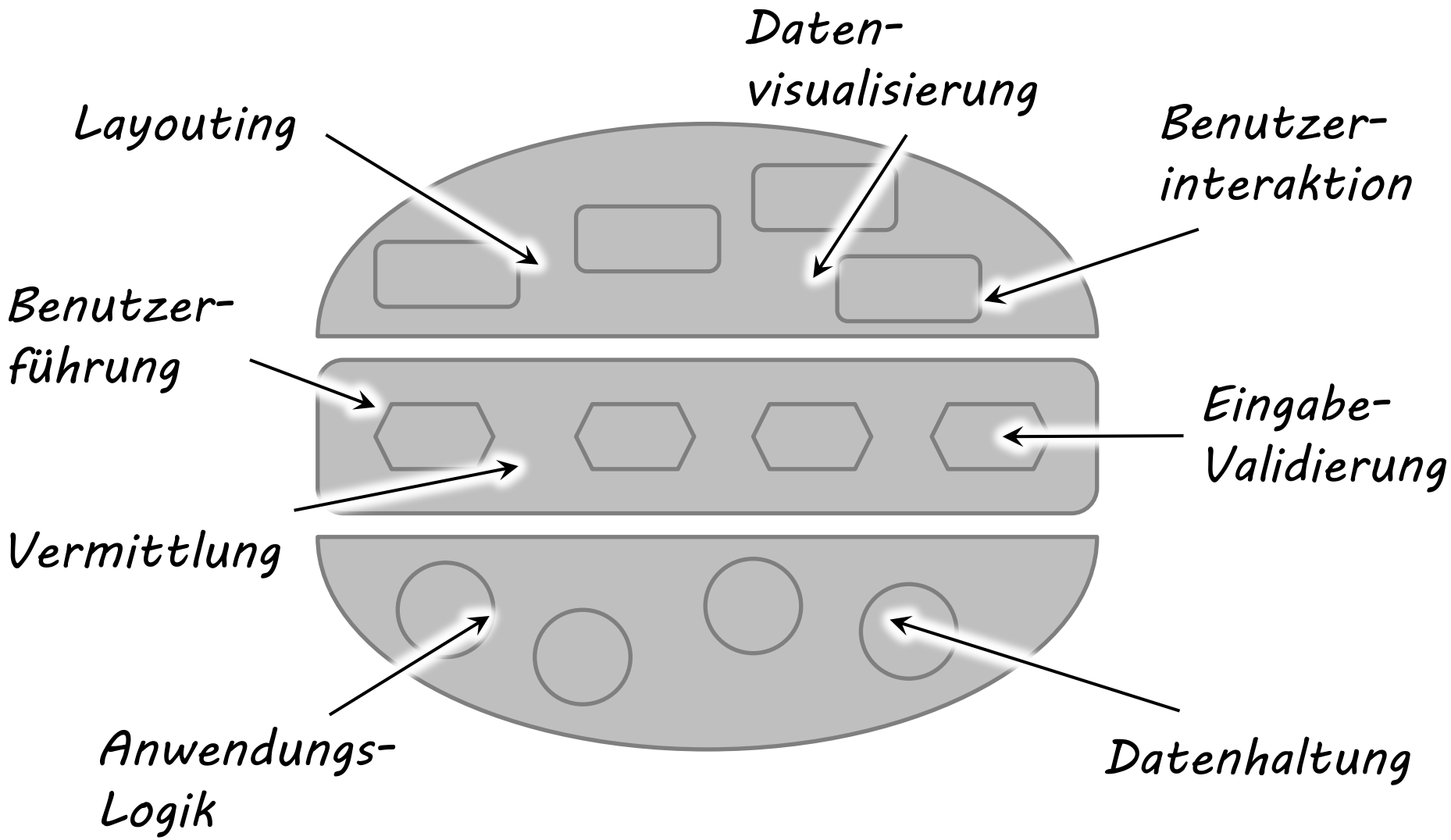
Das Problem mit Benutzerschnittstellen: Komplexität



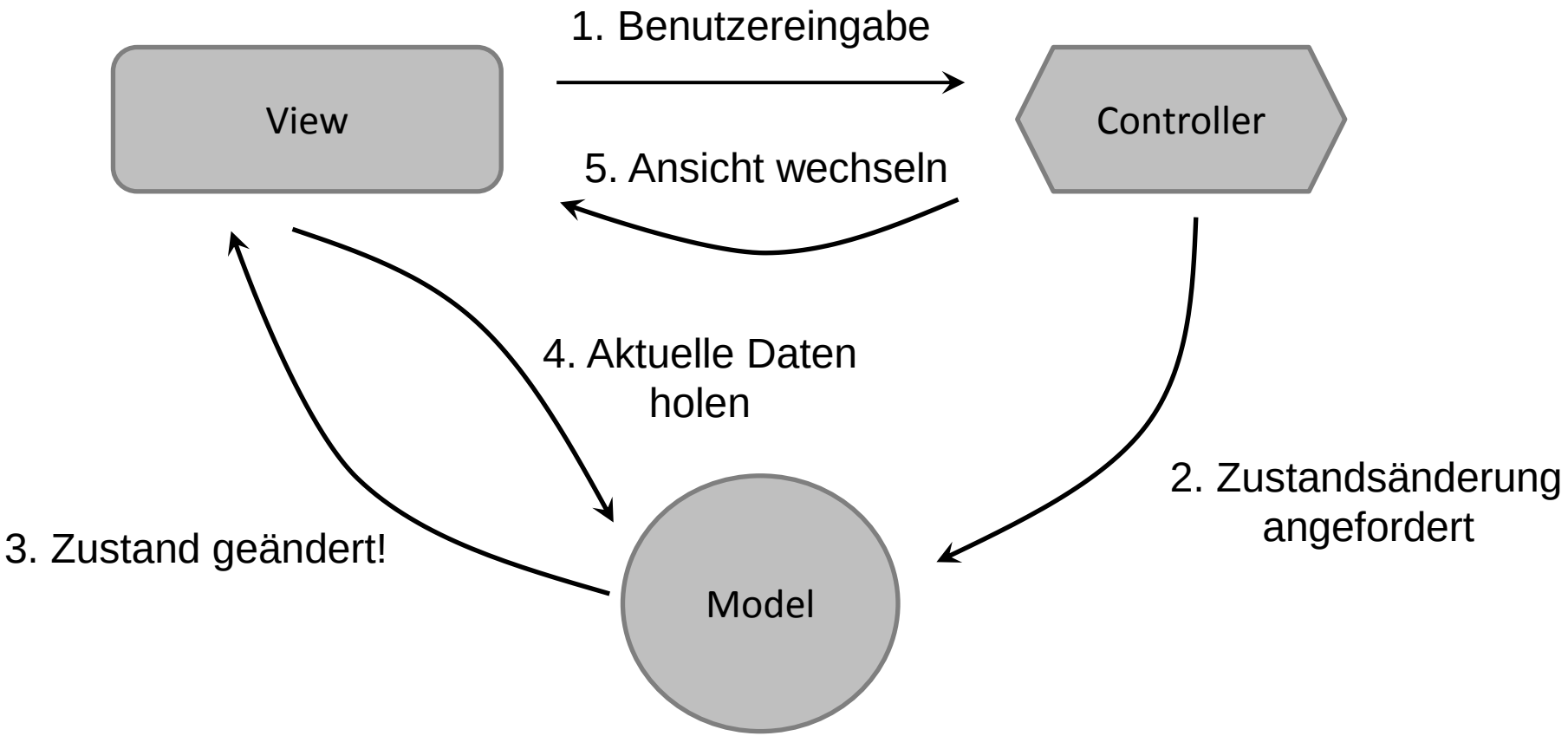
Der MVC-Hamburger (1/2)



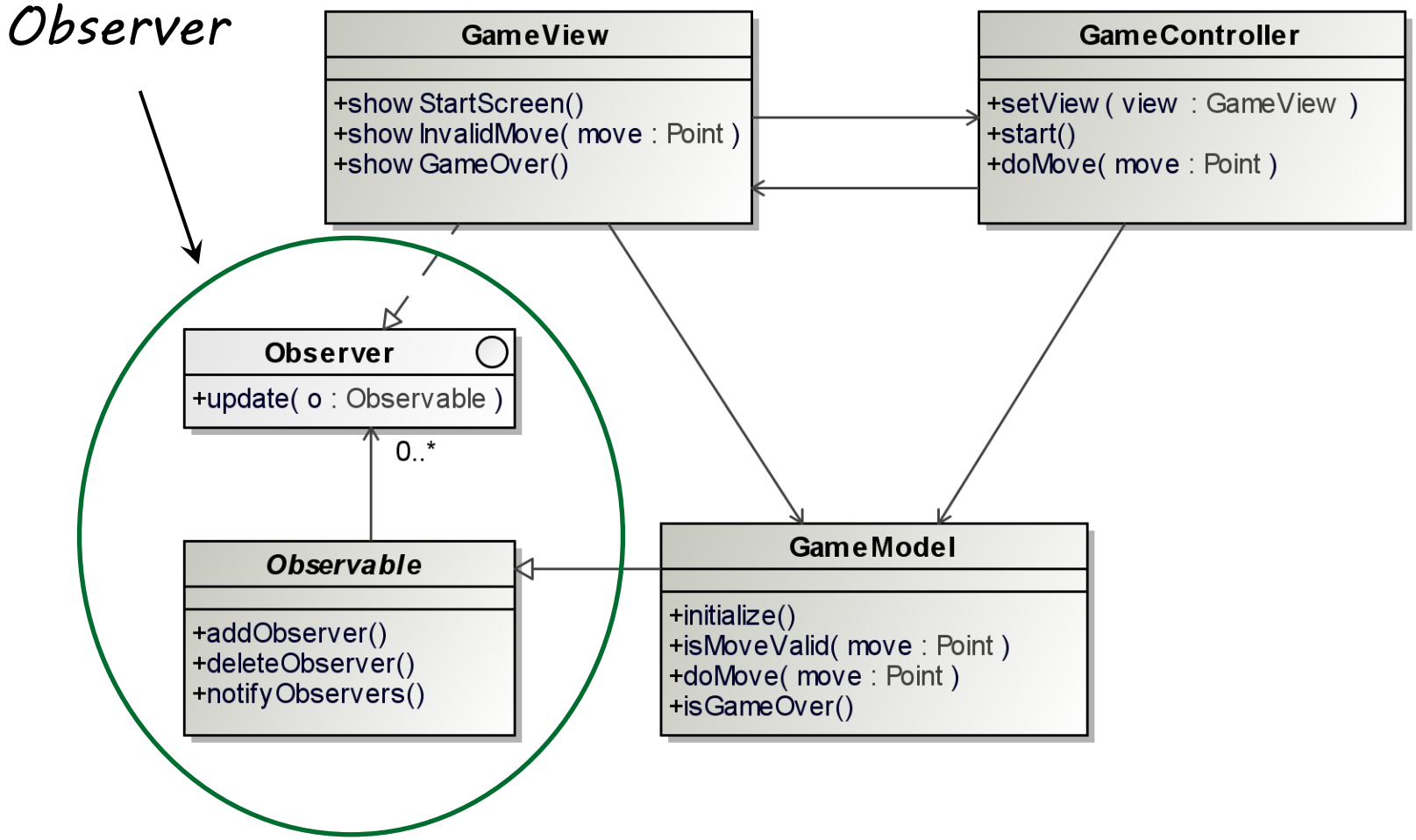
Der MVC-Hamburger (2/2)



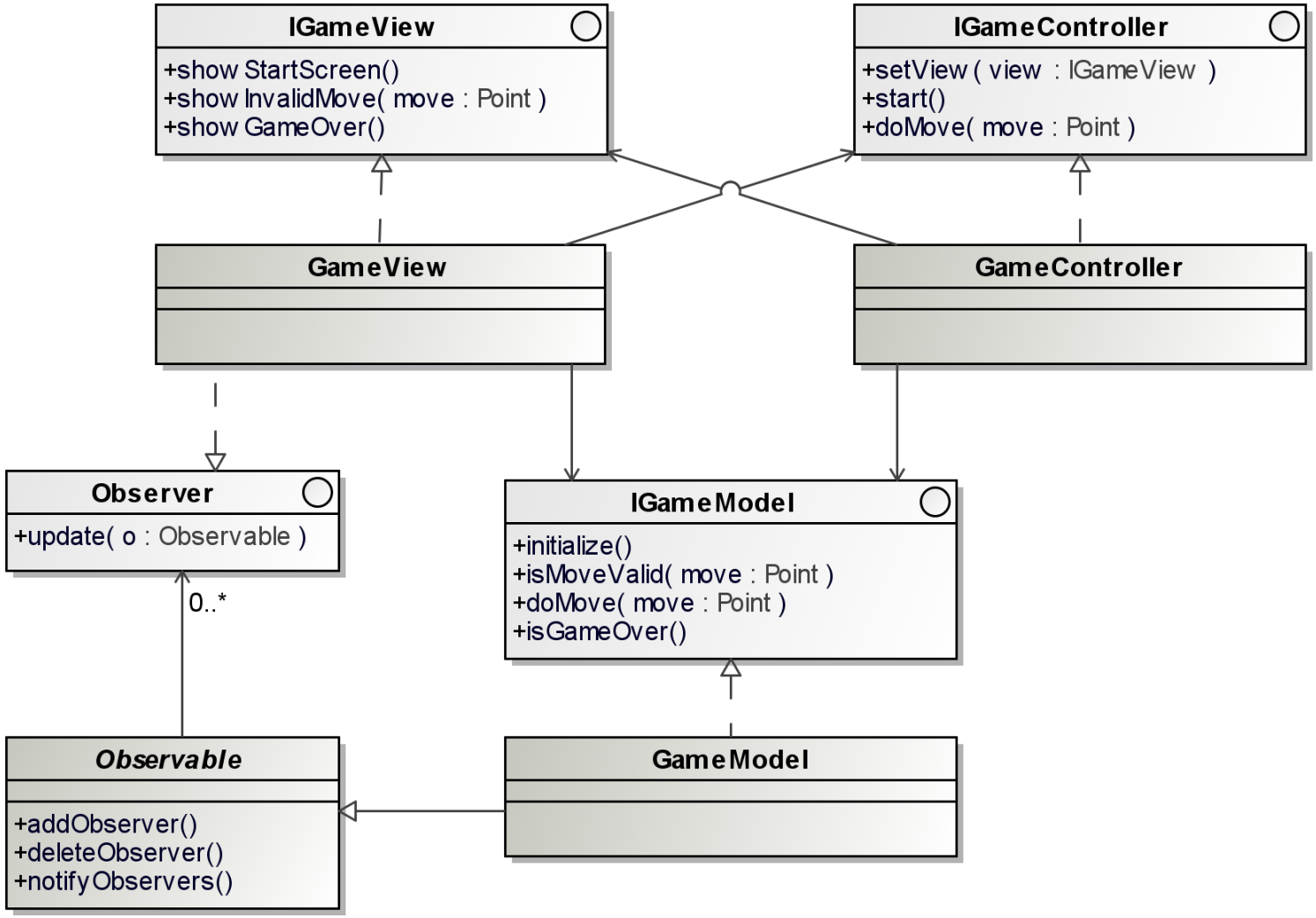
MVC – Verarbeiten von Benutzereingaben



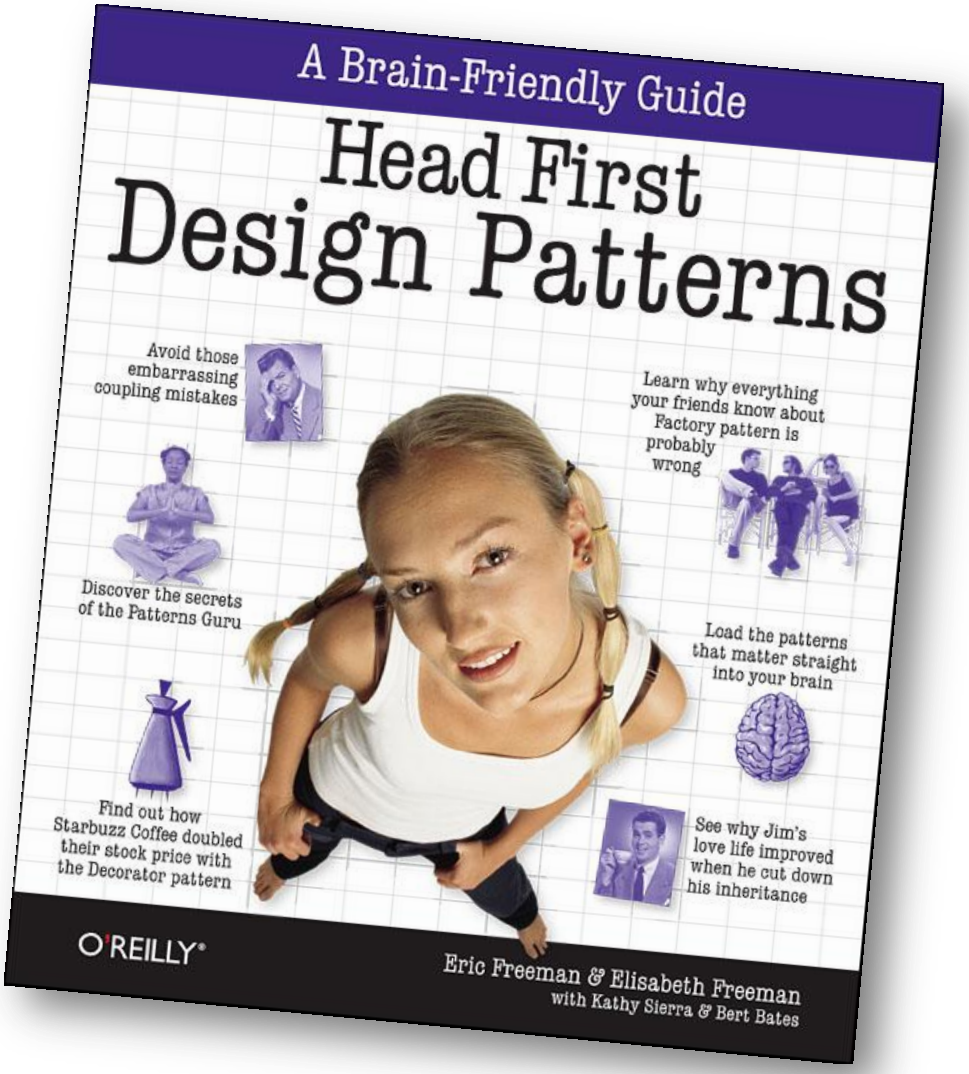
MVC – Klassendiagramm



MVC – mit Interfaces



Leseempfehlung



Zusammenfassung

Was in diesem Video behandelt wurde

- Die Idee von Design Patterns

- Observer Pattern
  - Habt Vertrauen in die Macht des Observer
- Model View Controller Pattern
  - Denkt an das Hamburger-Modell