

Neuschreiben nicht empfohlen

Dirk Haun

www.geeklog.net

Neuschreiben von **Applikationen**

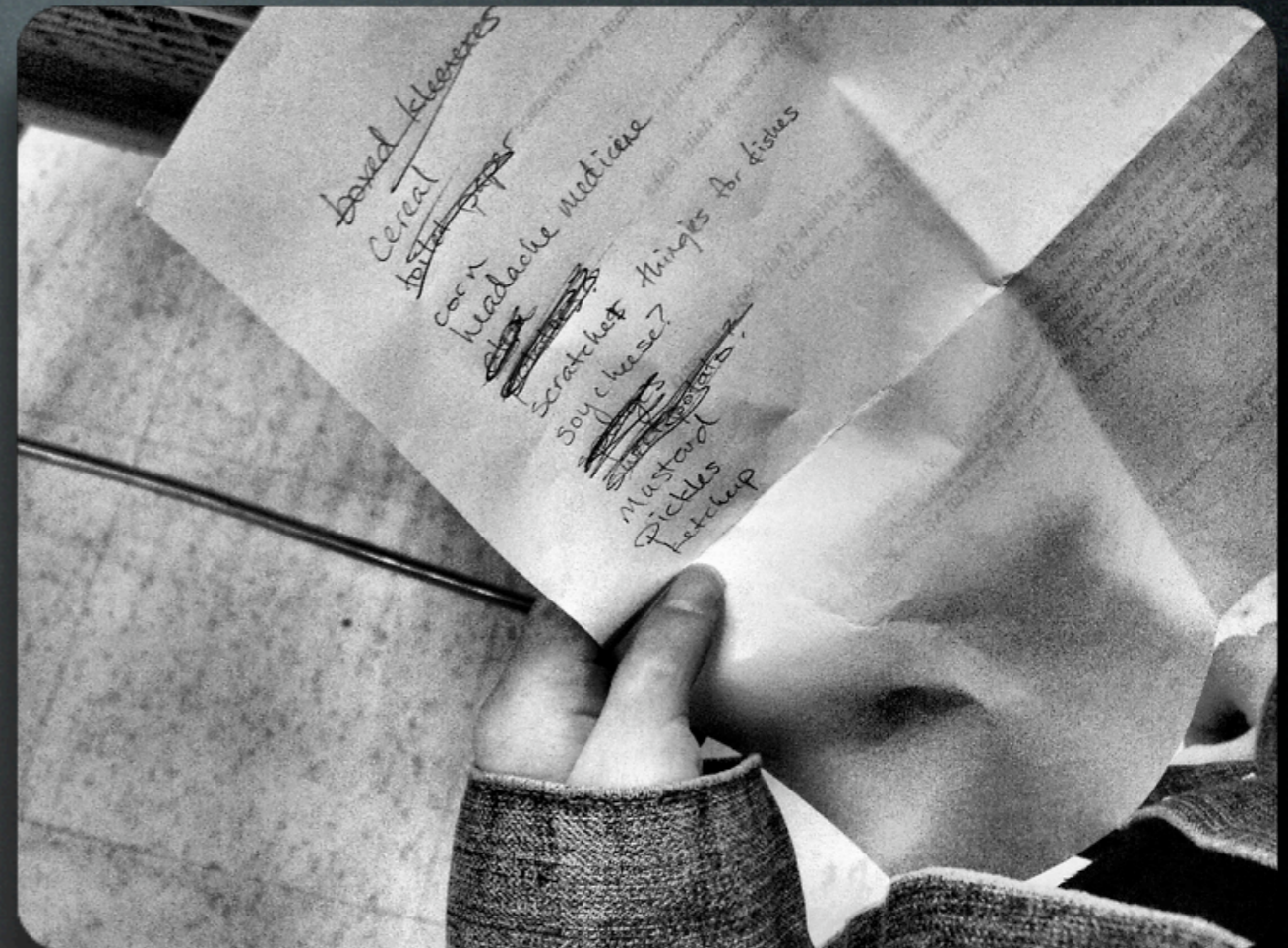
Vita

- GeldKarten-Terminal
- PDAs & Smartphones
- Service-Level-Management
- Dokumenten-Konvertierung
- Open Source CMS



Agenda

- Motivation
- Don't do it!
- Abhilfen
- Vermeidung



Warum will man Neuschreiben?

- **Rational:**

Probleme mit der **Architektur**

- **Irrational:**

Programmer's **Ego**

Motivation: Architektur

- ursprünglich:
"sauberer" Entwurf
 - nach Veröffentlichung
viele neue Feature-
Wünsche
- ➔ Klarheit leidet
- ➔ Lösung(?):
Neuschreiben!



Motivation: Architektur

- "bessere" Architektur
- leichter wartbar
- aus Fehlern gelernt



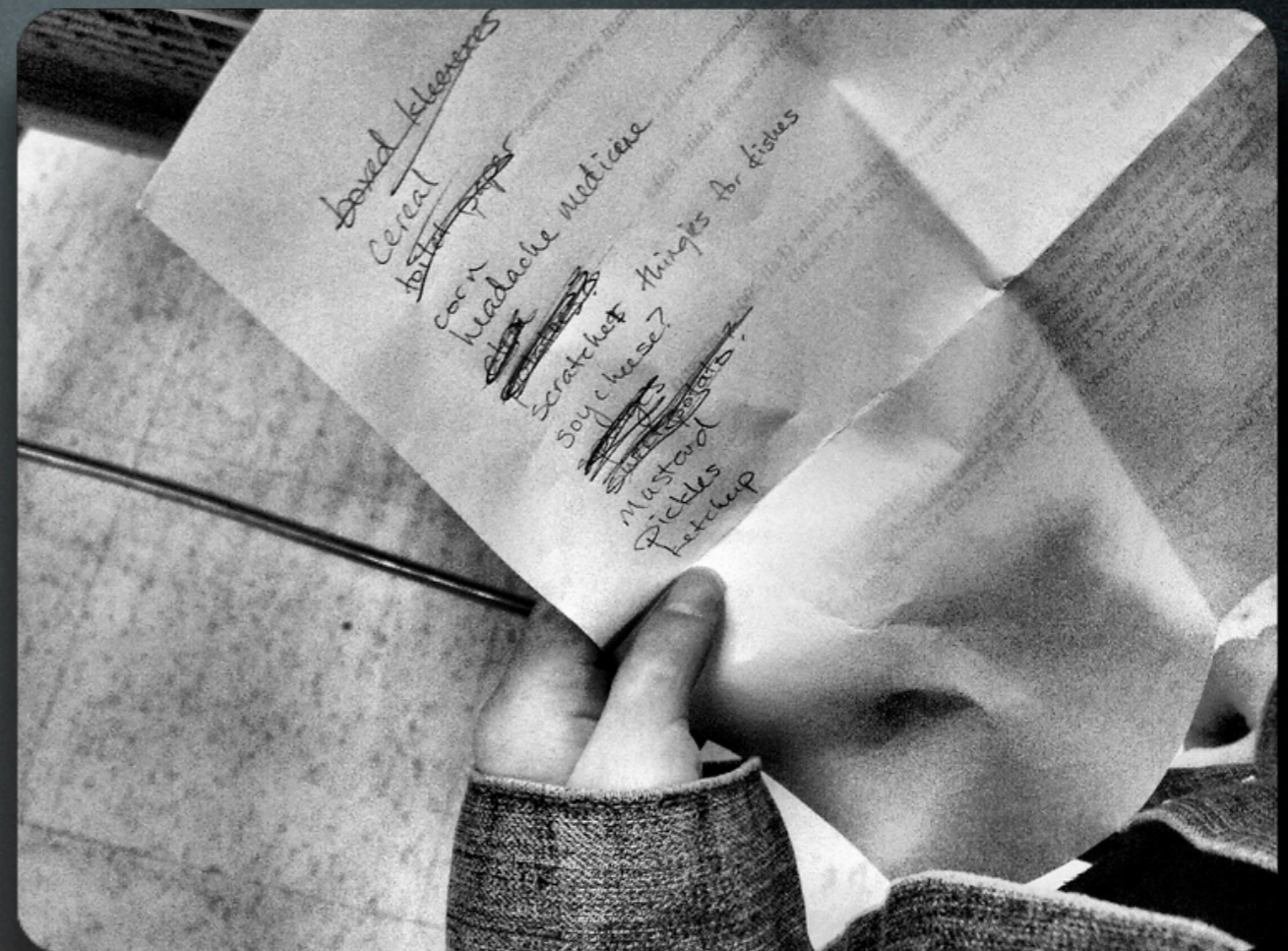
Motivation: Ego

- alter Code ist nicht "sexy"
- Unwille, Code anderer Leute zu pflegen
- persönliche Vorlieben vs. existierender Code



Agenda

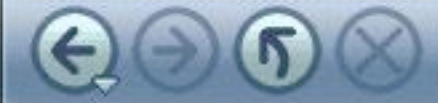
- Motivation
- Don't do it!
- Abhilfen
- Vermeidung



Neuschreiben braucht (mehr) Zeit

- Was liefert man in der Zwischenzeit aus?
- Verlust von Kunden, Bedeutung, Geld





My Sidebar Tabs ▶

- Search
- What's Related
- Buddy List
- Stocks

My Portfolio

DJIA	10,546.00	+75.80
Nasdaq	2,880.49	-23.89
S&P 500	1,348.97	+7.20
AOL	43.97	+1.07
Portfolio Total:	0	

Quote

Symbol Name

Quotes delayed 20 mins.
* Indicates Hi or Lo movement.
Disclaimer

Quote technologie from Tibco using TIB/ActiveEnterprise software. Quotes provided by S&P Com Stock.

Refresh Edit

News Today's Tips

Netscape WebMail WebCalendar My Netscape IM/Chat Download

Netscape Search [Search]

Classifieds Decision Guides Directory Games Job Search Maps/Directions Movie Listings White Pages Travel Deals Yellow Pages [Stocking Stuffers](#)

AAOL Advantage Rewards Join Now

Win with **NEW Netscape 6** **\$100,000** Enter daily! **Netscape 6stakes!**



Tuesday, November 28, 2000
Gore: Count Every Vote
 Taking his case to a national TV audience, Vice President Al Gore declared Monday that he would press his legal challenges to Florida's vote tally. Gore described the state's results as 'inaccurate and incomplete' and called for a 'single, full and accurate count.' Gore's comments came barely 24 hours after George W. Bush claimed victory.
[Read the Story](#) | [Text of Gore Speech](#)

AP

Poll: Is the election over?

Yes, Bush has won

No, wait until the courts rule

- LATEST NEWS**
- [CNN.com](#) ▶ [Gore, Bush lawyers prepare briefs for historic Supreme Court fight](#)
 - [Entertainment](#) ▶ [Geena Davis To Wed, Again](#)
 - [TV](#) ▶ [Will Downey's Arrest End 'Ally' Affair?](#)
 - [NFL](#) ▶ [Panthers Defeat Packers](#)

[Gateway: Save \\$750 on a music PC!](#)

Check Your Weather []
 Enter Zip Code or City

- Top Picks**
- [New: Netscape 6](#)
 - [Book Your Flight](#)
 - [Build a Web Site](#)
 - [Consumer Guides](#)
 - [Gift Ideas](#)
 - [Latest Software](#)
 - [Love@Netscape](#)
 - [Online Games](#)
 - [Post a Job](#)
 - [Your Horoscope](#)

Departments

Autos	House & Home	News
Bus. & Careers	International	Research & Learn
Computing	Lifestyles	Shopping
Entertainment	Local	Sports
Health	Music & Radio	Travel

Enter Daily **\$100,000** Netscape 6stakes!

business ↓ personal finance ↓ small business ↓ shop ↓ tech ↓ fun

MARKET CENTER
 Stock Quotes by SALOMON SMITH BARNEY
 []
 Symbol Name

CBS MarketWatch: Retail surge helps Dow
Reuters: Telecoms, Drugs Drag FTSE 100 Lower
ZDNet: Vote (again) for president online
[Get a leg up on your career with tools and advice.](#)

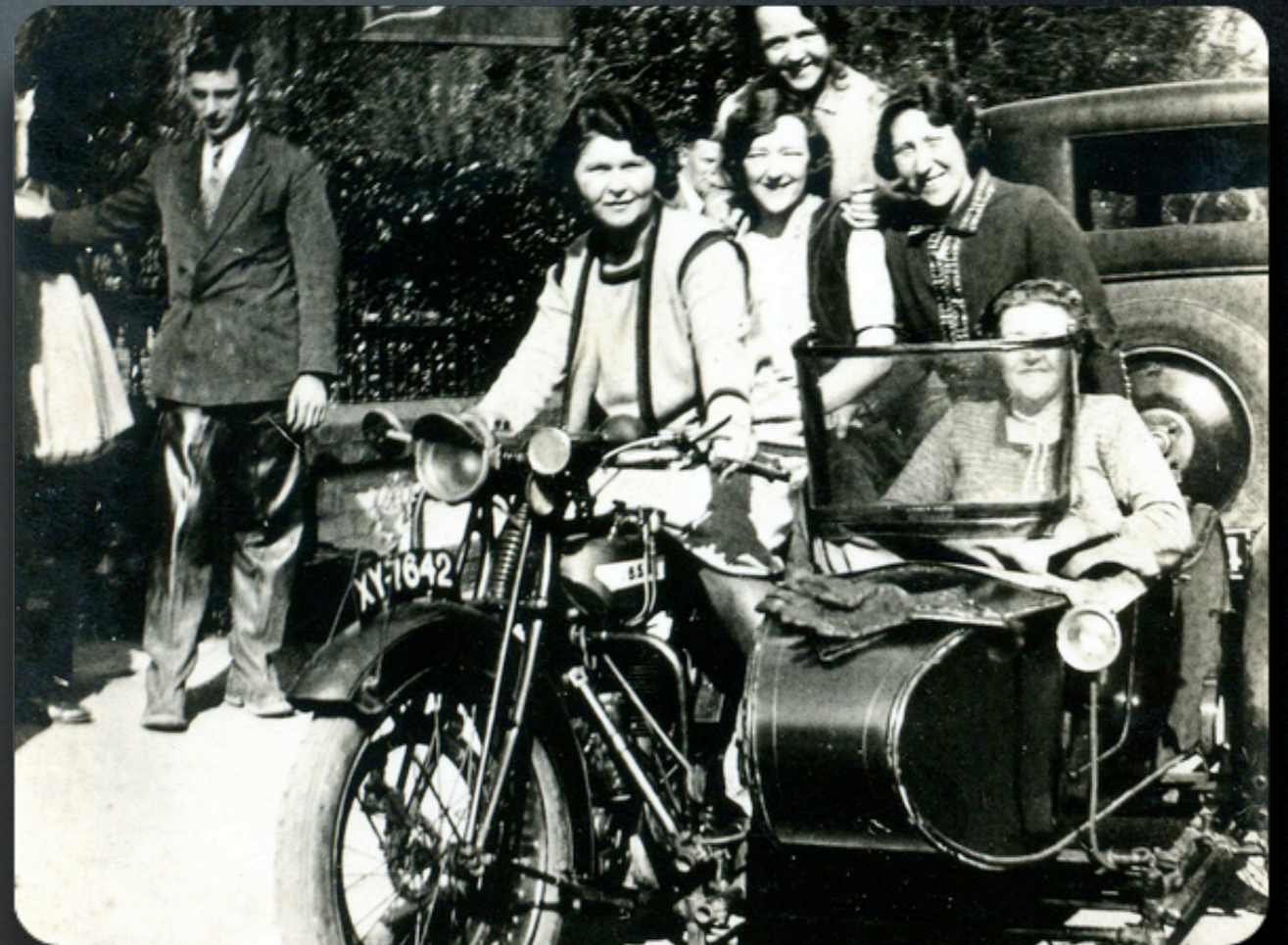
Free Agents: Your career. Your choice.
Printers & More: Accessorize your office with new hardware and software.
Nine to Five: Office gift giving made easy.

B2B Or Not: Instant access to the largest market in business e-commerce.
Know Thine Enemies: Research your competition with a D & B business background report.
Cash IQ: Get 'smart' money to help build your small business.

[more business >](#)

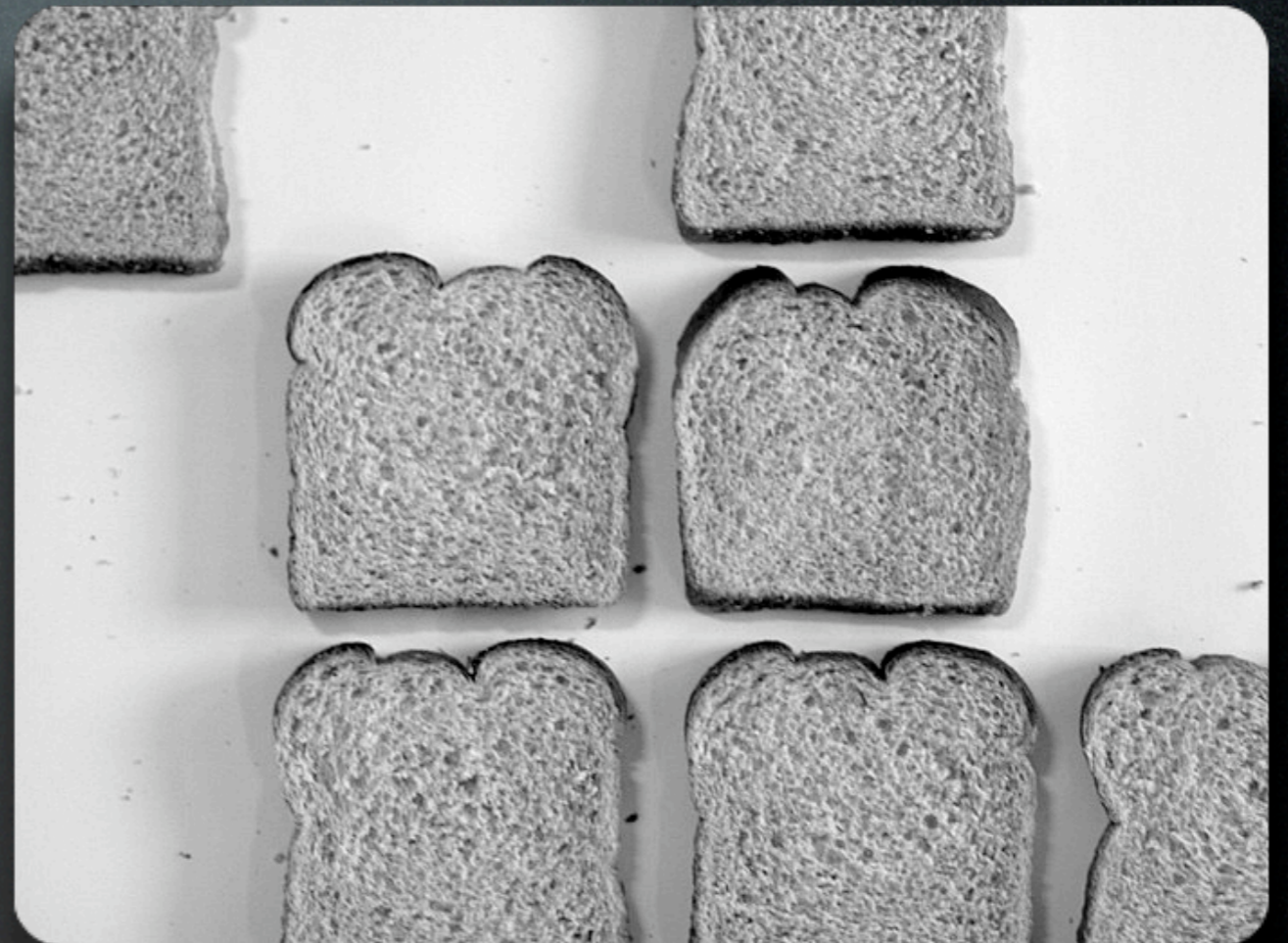
Stillstand vermeiden?

- Zwei Teams?
 - ▶ Woher kommen all die Leute?
 - ▶ Moving Target
- "Maintenance Mode" für die alte Version?
 - ▶ Was ist ein Bug?



Verlust von Details

- alte Funktionalität wieder herstellen
 - ▶ wirklich alles dokumentiert?
- Workarounds für Real-World-Probleme



No software is an island

- Software existiert nicht im Vakuum
- Kompatibilität mit 3rd-Party-Applikationen
- Gesamtfunktionalität



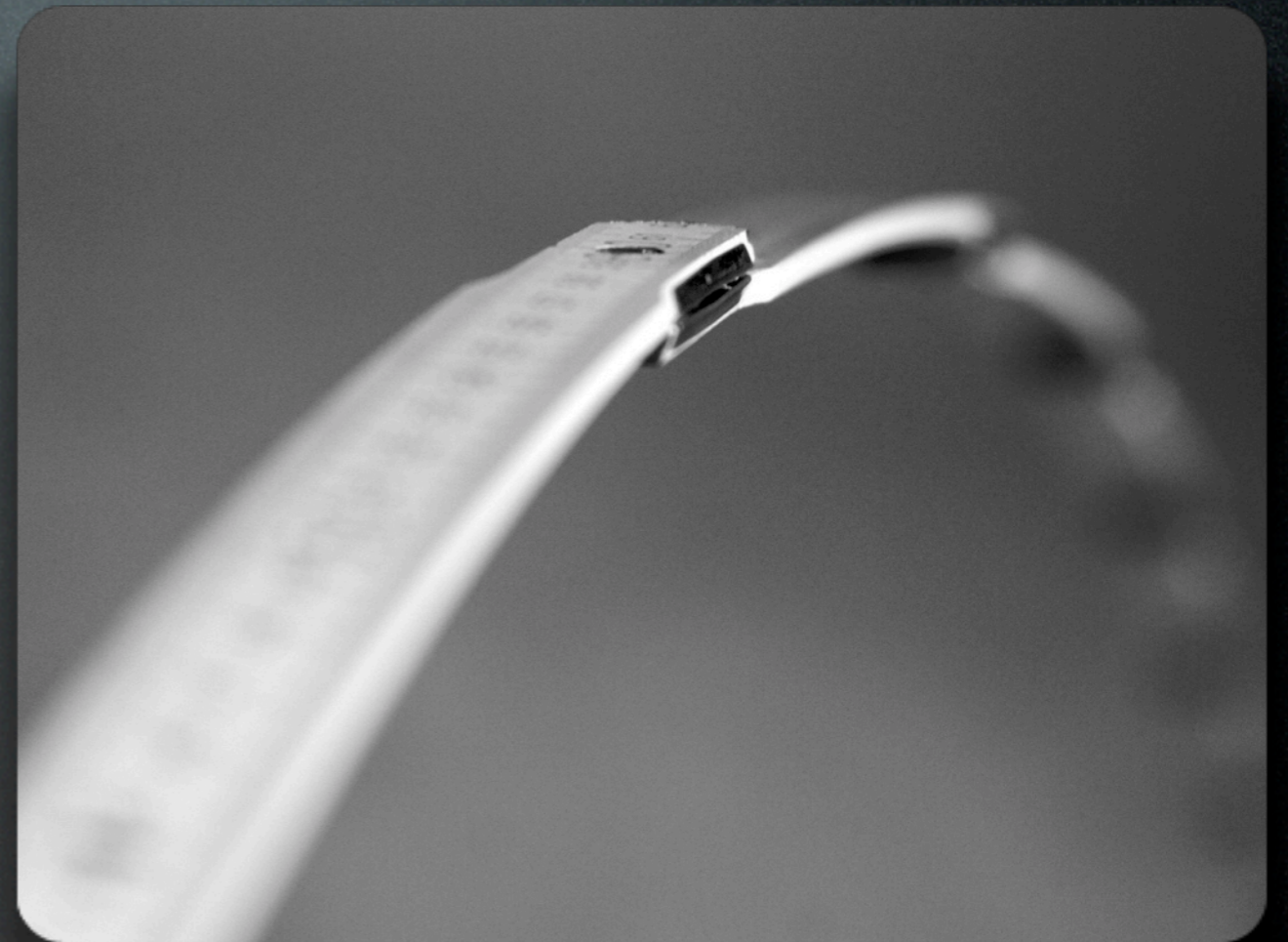
Kann es wirklich nur besser werden?

- manchmal keine "bessere" Lösung
- alte Fehler
 - ▶ Umfeld, Zeitdruck
- neue Fehler
 - ▶ Lernprozess



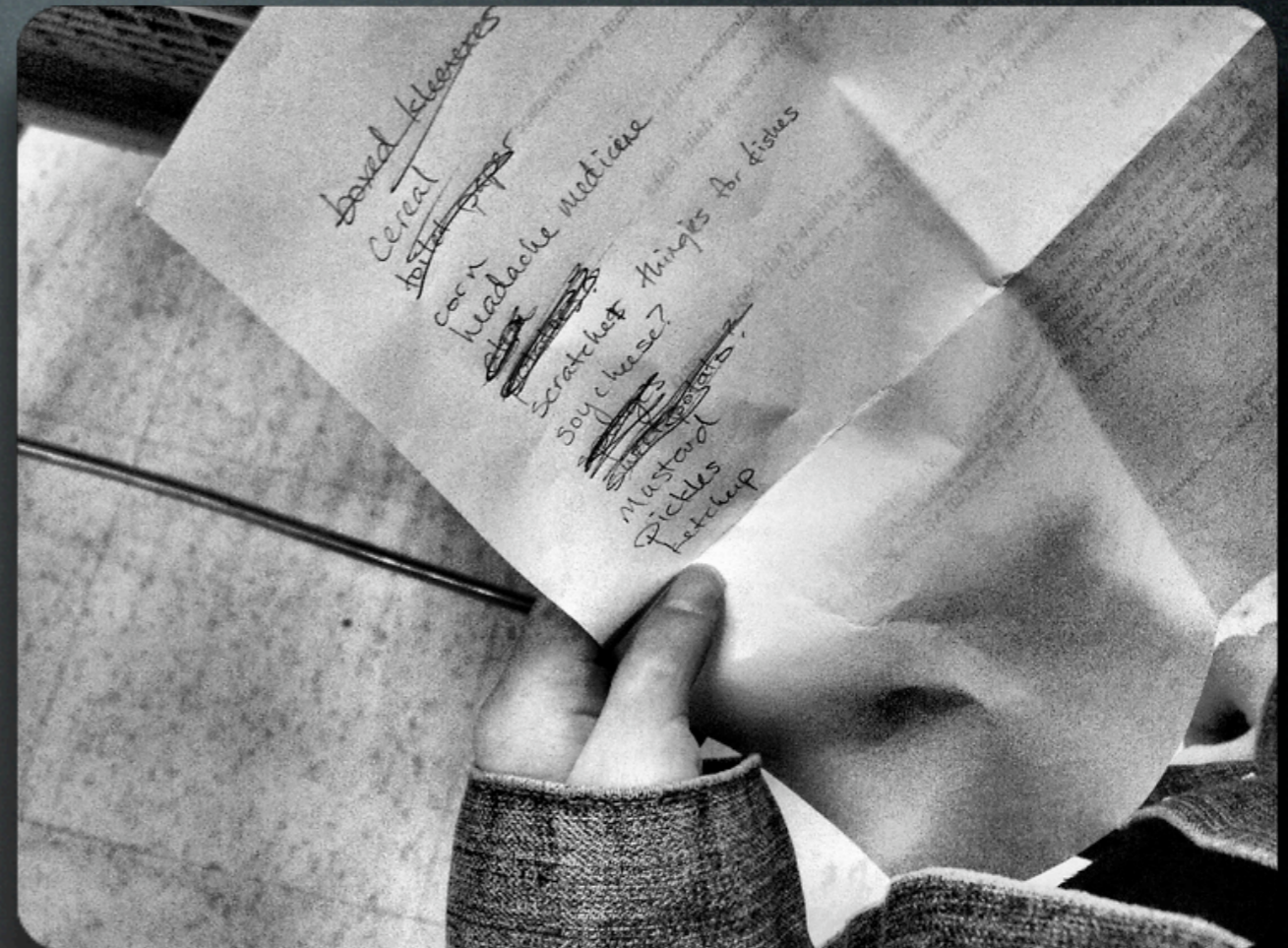
Ausnahmen?

- Wechsel der Technologie
- In-House-Tools
- Neufokussierung



Agenda

- Motivation
- Don't do it!
- Abhilfen
- Vermeidung

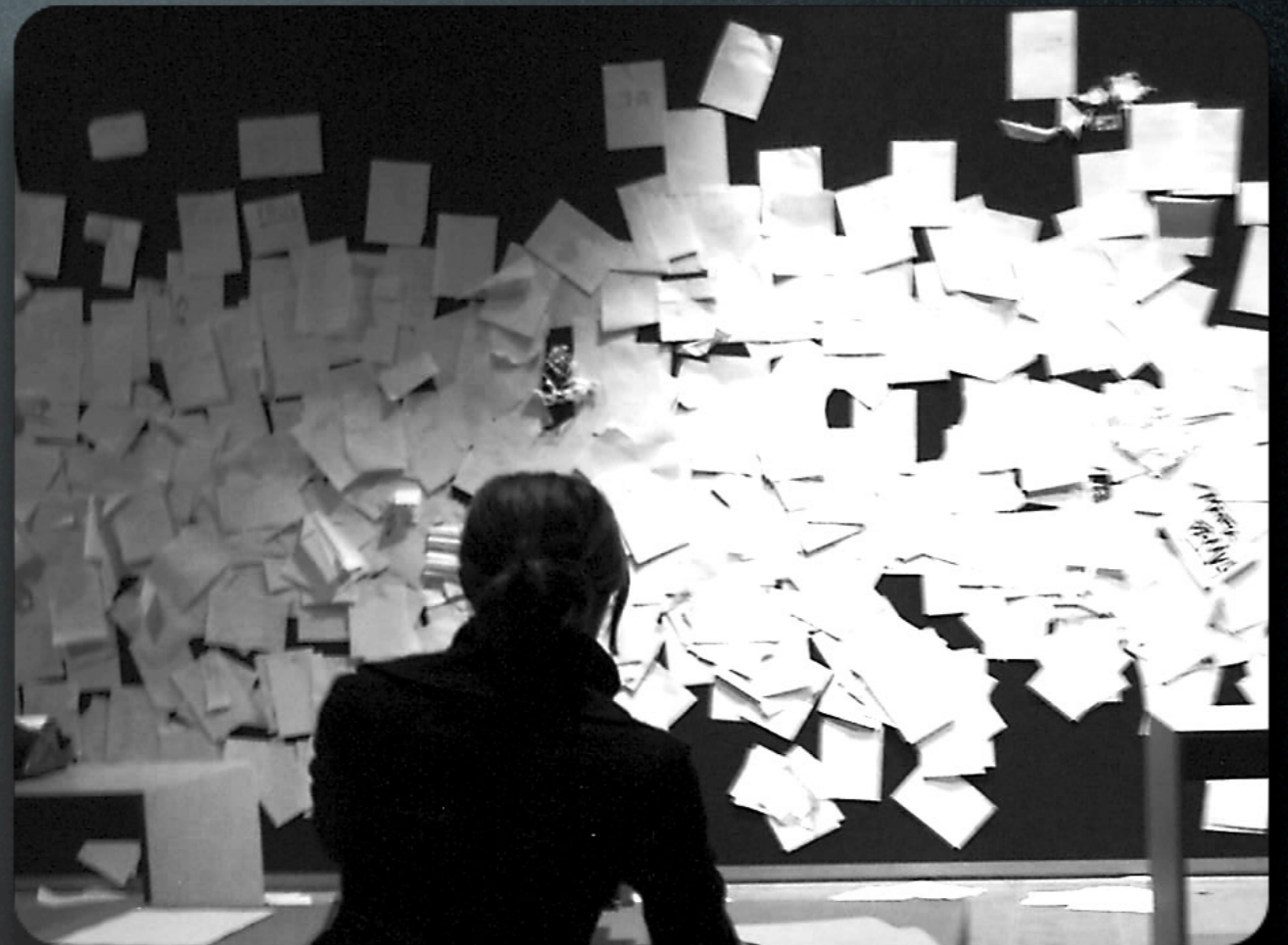


Personally I believe that some systems just require some love, and radical refactoring, to breathe new life into them.

-- Tim Penhey

Refactoring

- Module identifizieren
- problematische Stellen identifizieren
 - ▶ Flaschenhälse
 - ▶ unübersichtlicher Code



Refactoring: Tests

- Unit-/Component-Tests!
 - ▶ für jeden Bug
- ➔ lohnt sich auch schon für die laufende Entwicklung
- Module schrittweise um-/neuschreiben



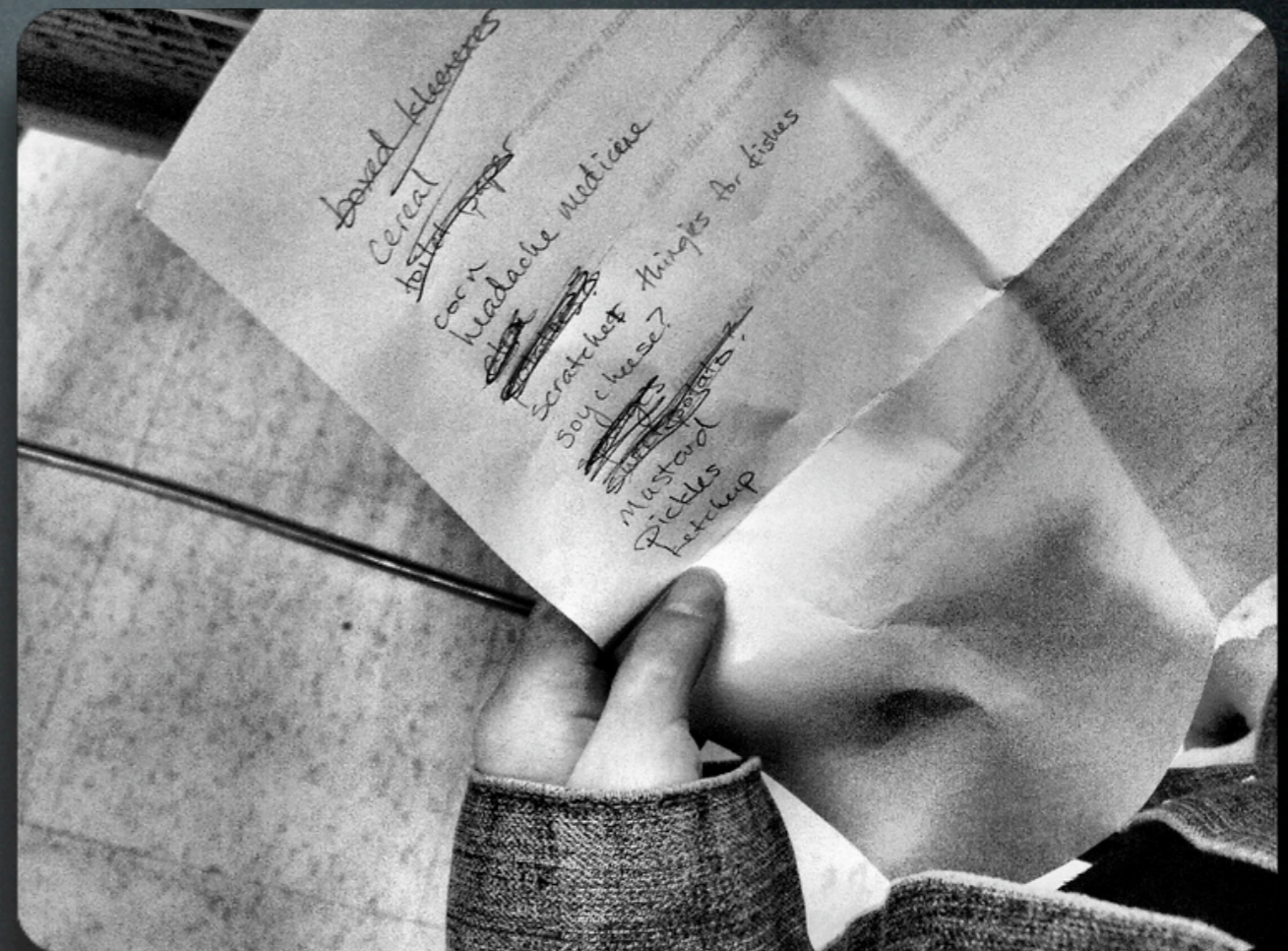
Positive Nebeneffekte

- besseres Verständnis des Systems
- bessere Aufwands-Abschätzungen



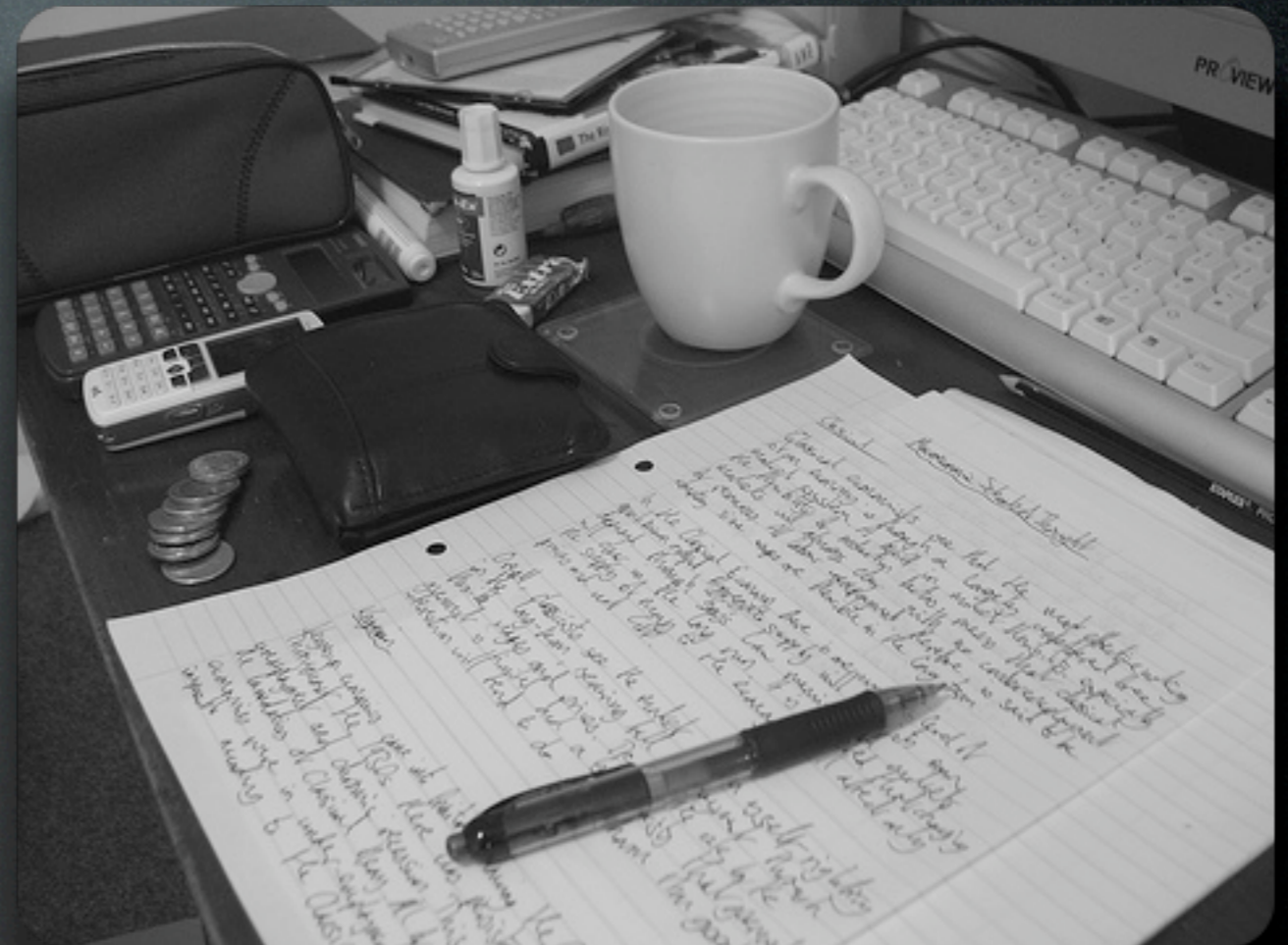
Agenda

- Motivation
- Don't do it!
- Abhilfen
- Vermeidung



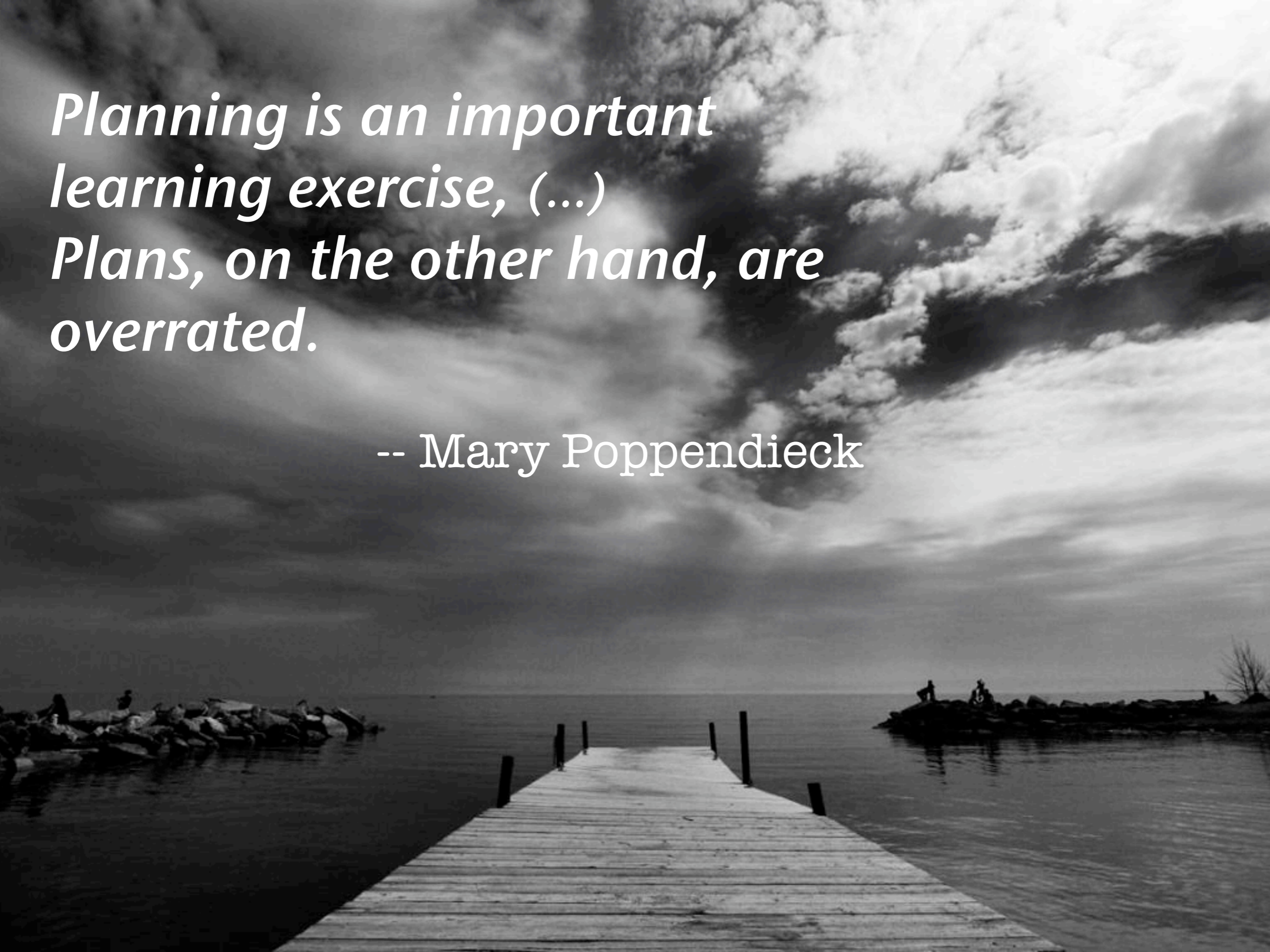
Spezifikationen?

- bessere Specs?
 - ▶ schön wär's ...
- flexibel sein
 - ▶ TDD, Agile
- kein Verzicht, aber weg von starren Spezifikationen



*Planning is an important
learning exercise, (...)
Plans, on the other hand, are
overrated.*

-- Mary Poppendieck



Rotting Code

- Wie ist das passiert?
 - ▶ Druck, Zeitmangel?
 - ▶ Inkompetenz?
- Ursachenforschung
 - ▶ Was kann man dagegen tun?



Mehr Kommunikation!

- Projekt-intern
- mit Kunden/Usern
- Entwicklung ↔
Marketing ↔ Kunden
- Vorteil(?) für
OpenSource-Projekte



Zusammenfassung

Gefahren

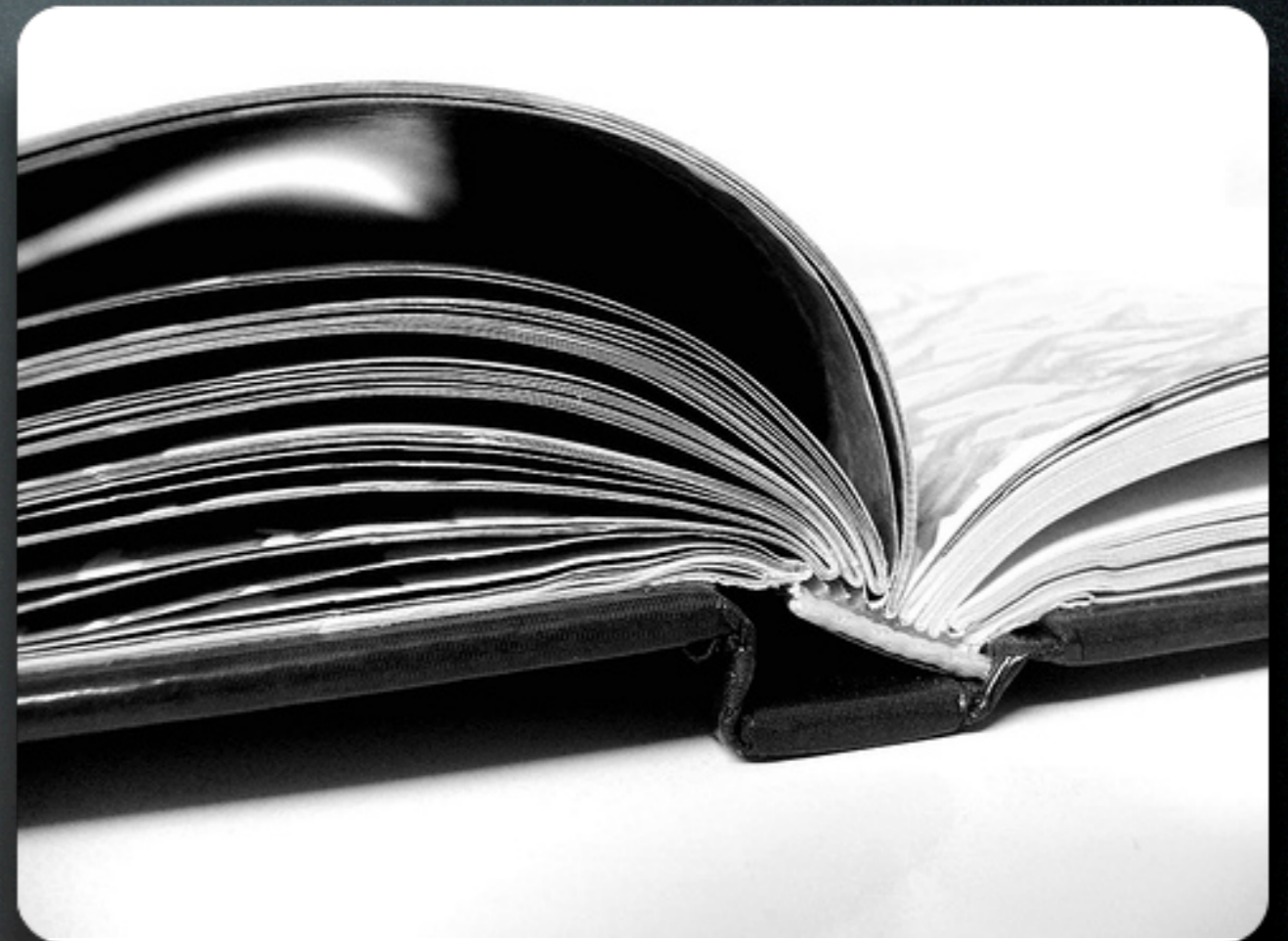
- Verlust von ...
 - ▶ Marktanteil / Bedeutung
 - ▶ Funktionalität
 - ▶ 3rd-Party-Applikationen
- alte Fehler wiederholen
- neue Architektur, neue Fehler

Abhilfen

- Refactoring statt Neuschreiben
- Test Driven Development, Agile
- Ursachenforschung:
 - ▶ Was ging beim letzten Mal schief?
- Kommunikation verbessern

Ressourcen

- [Joel on Software](#)
(Buch und Website)
- [Agile Software Development](#)
- [Lean Software Development](#)



P.S. Die Stichworte sind verlinkt.

Credits

- Photos via flickr.com, thanks to: Hopkinsii, striatic, paul goyette, Kazze, adrenalin, ikelee, Auntie P., frozenchipmunk, Kevin Labianco, fallsroad, photo.bugz, tim_d, lagiuspo, Nathan James, ladyphoenixx_1999, Grim Reaper With A Lawnmower, re-Verse, amuk2006, Pathfinder Linden, Gigglejuice, manuki

