

workshop introduction

Daniel Jackson · Autodesk · Woodinville, WA · Dec 3-5, 2024

introducing
myself

my career in buildings



Physics at Oxford



Programmer for Logica UK

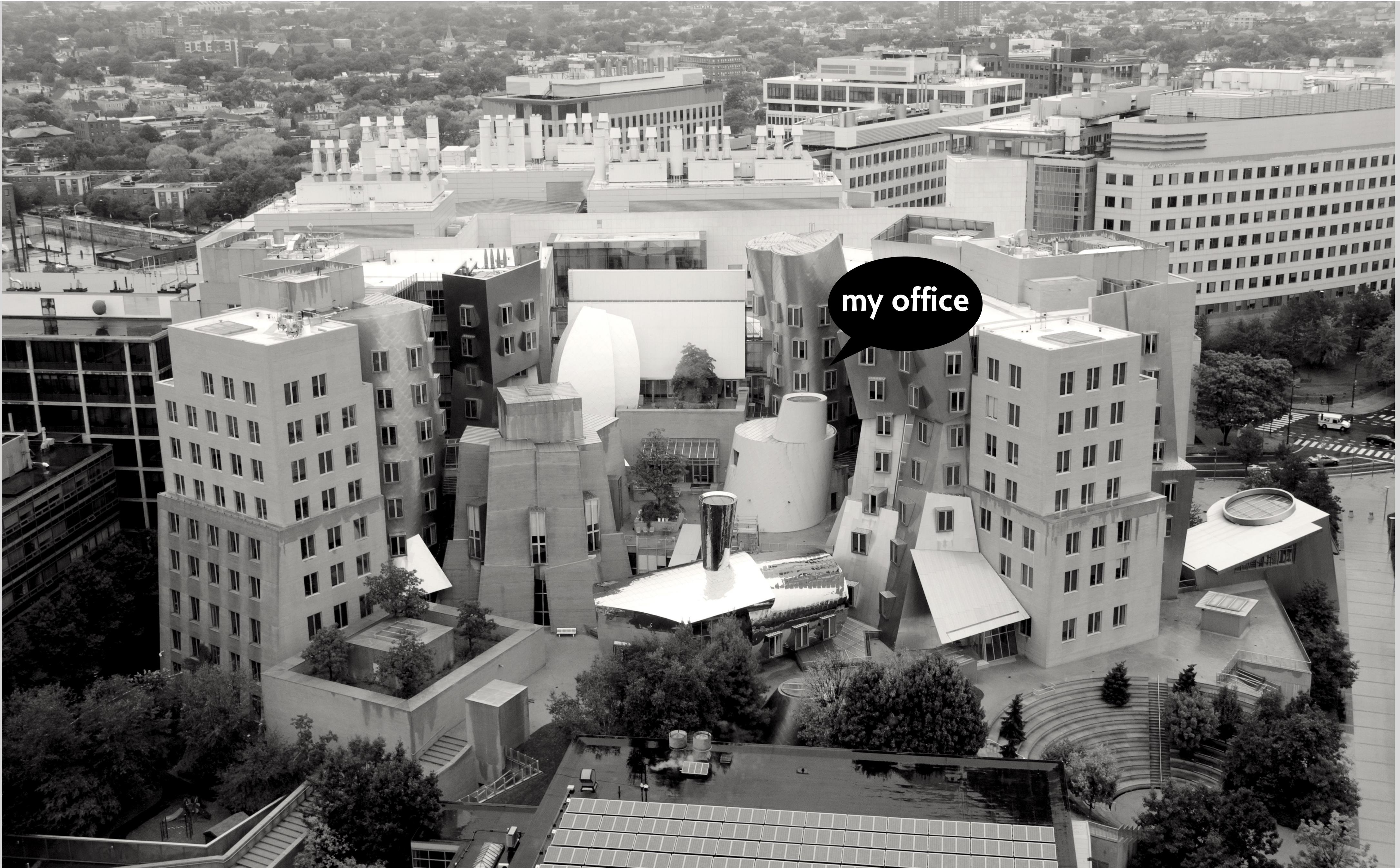


Computer science PhD at MIT

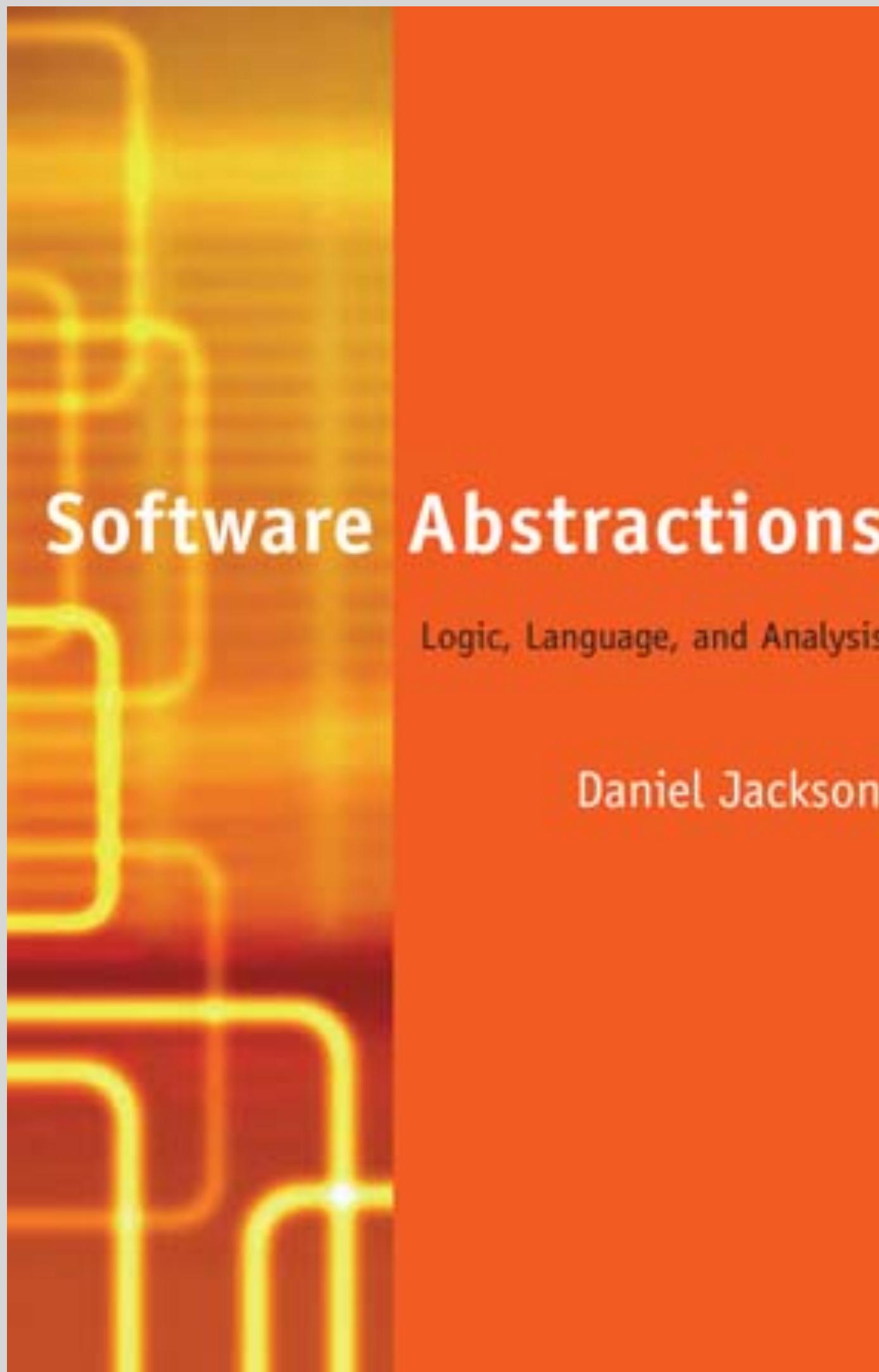


Assistant prof at CMU

where I work now



alloy: a lightweight, analyzable modeling language



```
1 abstract sig EndPoint { }
```

```
2 sig Server extends EndPoint {
```

```
3   causes: set HTTPEvent
```

```
4 }
```

```
5 sig Client extends EndPoint { }
```

```
6 abstract sig HTTPEvent {
```

```
7   from, to, origin: EndPoint
```

```
8 }
```

```
9 sig Request extends HTTPEvent {
```

```
10  response: lone Response
```

```
11 }
```

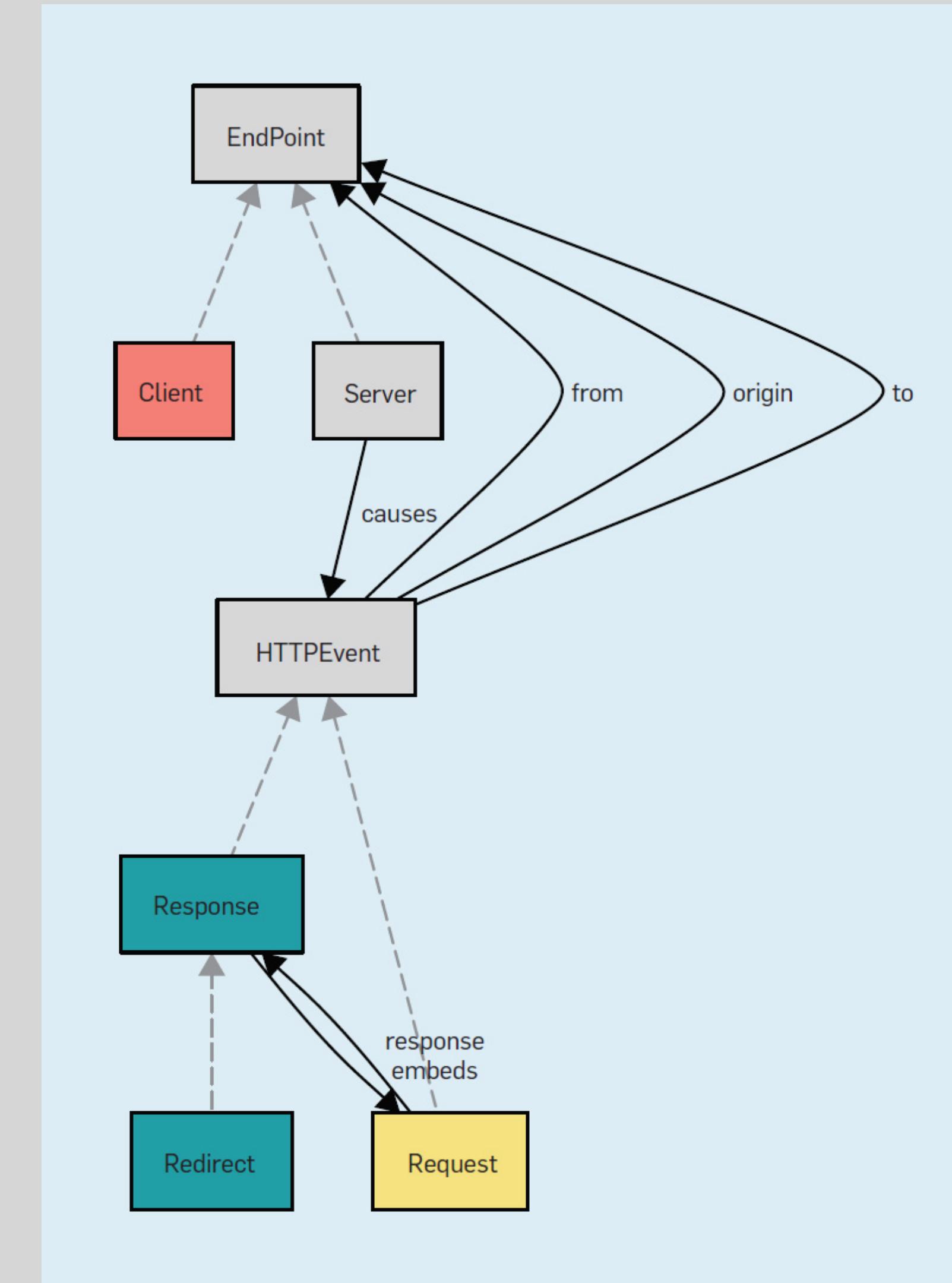
```
12 sig Response extends HTTPEvent {
```

```
13  embeds: set Request
```

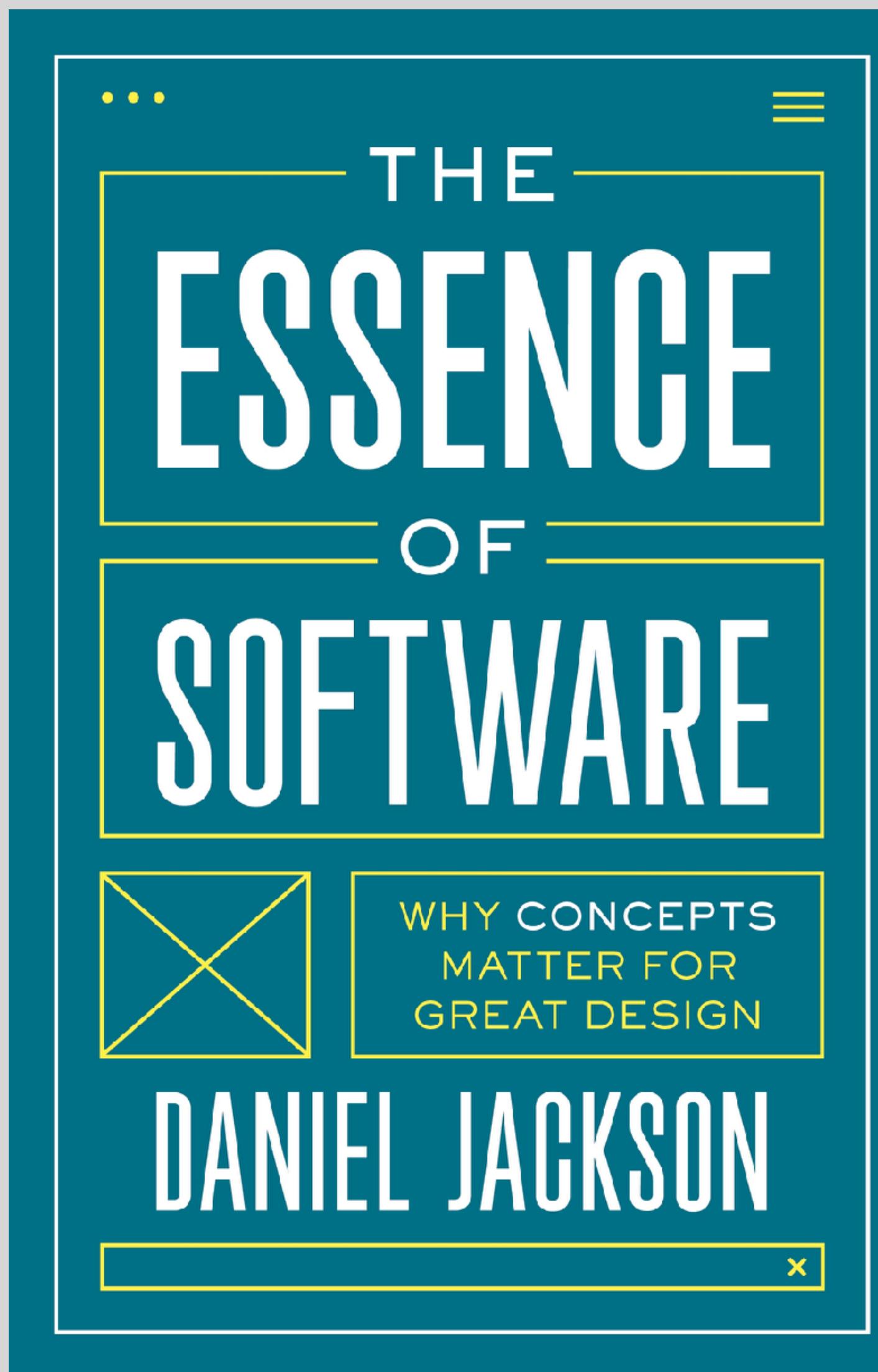
```
14 }
```

```
15 sig Redirect extends Response {
```

```
16 }
```



concepts: a new approach to software design



when I'm not working



how this
project began

a simple task: sign and return

Field Trip Permission Form

Dear Parents:

Ms. Frizzle will again be taking her second grade class on an exciting field trip. Please sign and return the permission slip below.

Thank you!

Yes, I give permission for my child to go on the second grade "Touch and Feel" trip on Friday February 13th to the NastyCo Nuclear Dump. I understood that my child may encounter the normal risks of childhood play, including grazed knees, hurt feelings and exposure to toxic waste.

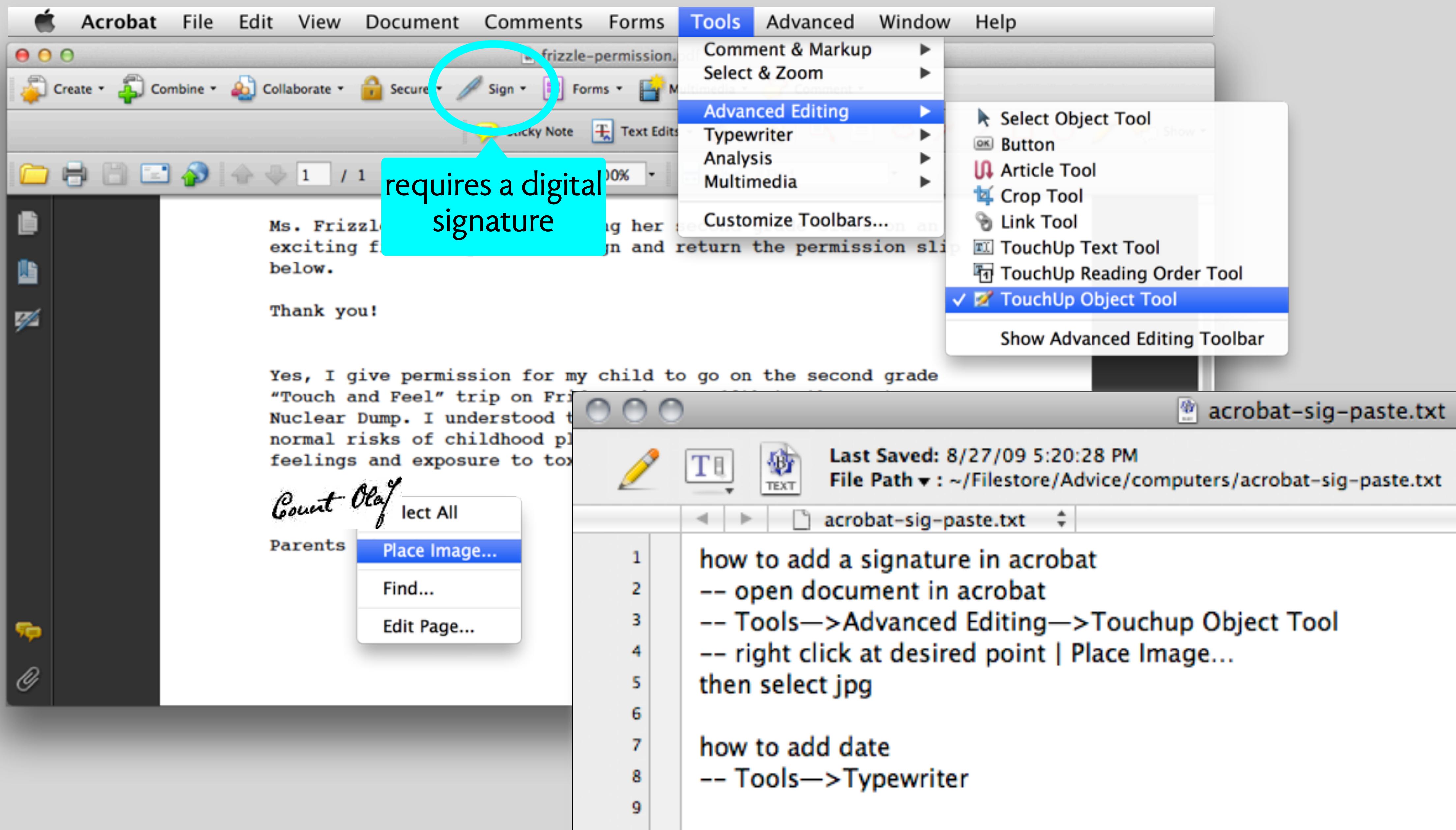
Count Olaf

Dec 12, 2009

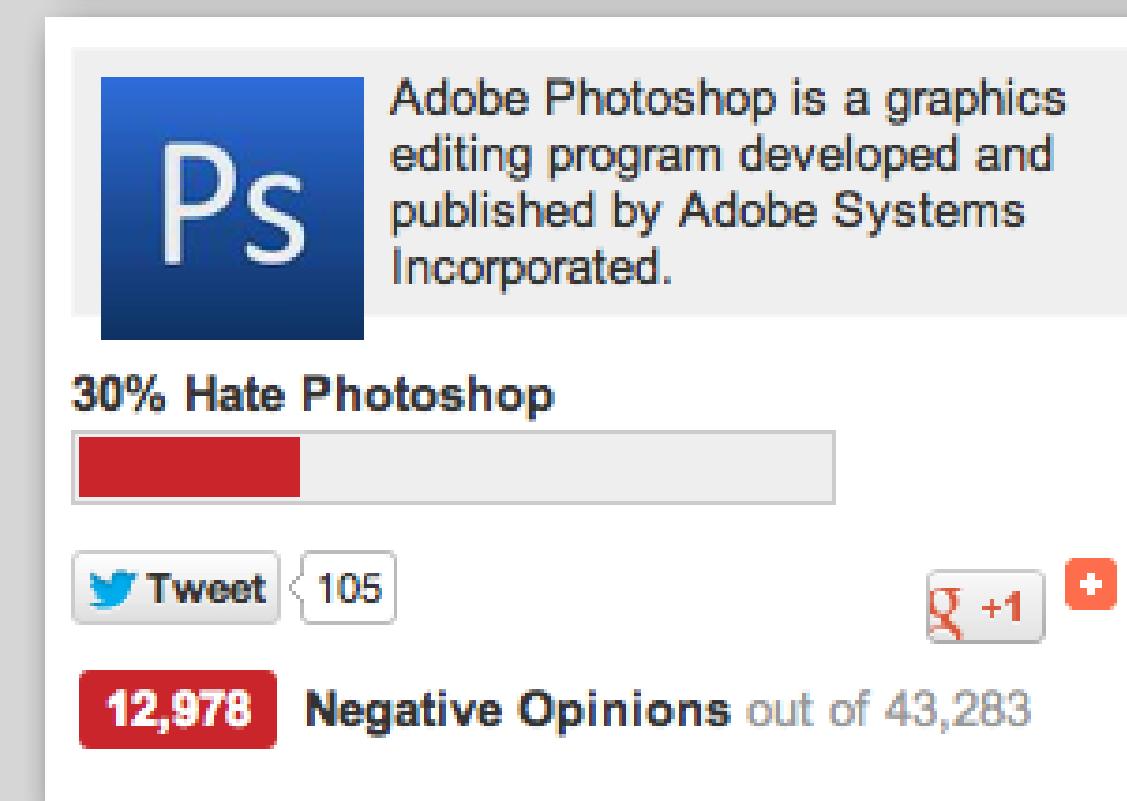
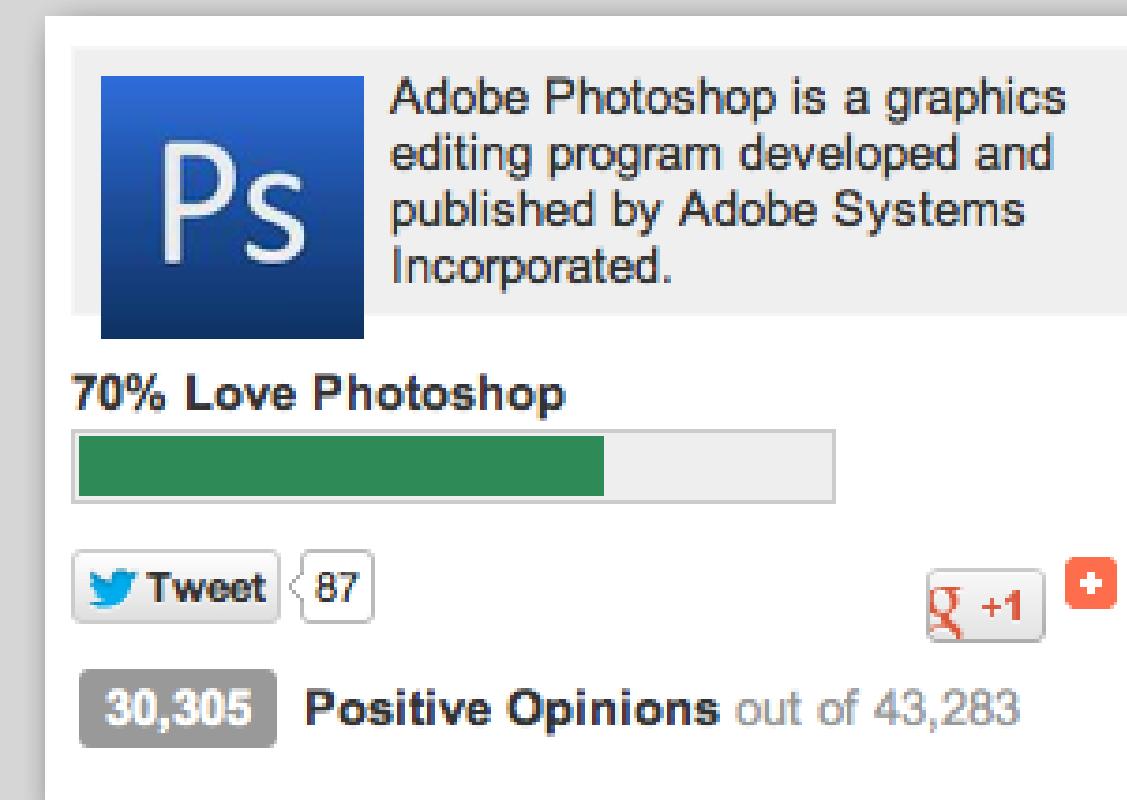
Parents signature

Date

acrobat to the rescue?



i am not alone...



what kinds of problems are these?



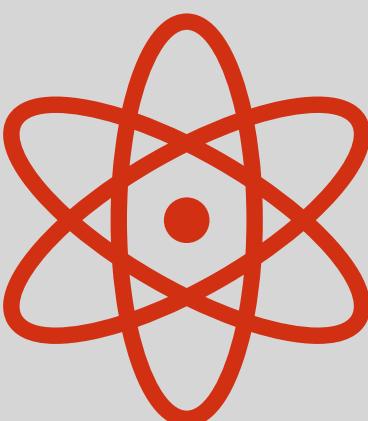
not human errors



not bugs in the code



not UI design flaws



not lack of technology

if only...

we could figure out...

what makes some apps slick and easy-to-use and some clunky?

why some products take off and others gather dust?

how to design apps to make them flexible, powerful and simple?

then we might...

improve the quality of software & people's lives

know how to design successful products

reduce complexity for users & developers alike

workshop plans & goals

our schedule

Time	Tuesday	Wednesday	Thursday
9:00	Welcome & intros	Questions from yesterday	Questions from yesterday
9:30	Why software is hard	Disentangling concepts	Team activity: detailed concepts
10:45	Break	Break	Break
11:00	Innovation scenarios	The quintessential design move	TBD
12:15	Discussion	Discussion	Discussion
12:45	Lunch	Lunch	Lunch at 1pm; adjourn
13:45	Designing concepts	Product families & catalogs	Debrief & discussion
15:00	Break	Break	
15:15	Designing syncs	Team activity: initial concepts	
16:30	Review of day	Review of day	
17:00	Adjourn	Adjourn	

workshop goals

offer you a fresh viewpoint

find new insights & joy in your work, whatever your role

give you a language to articulate design ideas

capturing and articulating what great designers already do

support application of concept design at Autodesk

help you make catalog more valuable & effective

suggest new ways to separate concerns and achieve modularity

focus on data integration and alignment between Revit, Forma, etc

have fun and learn!

looking forward to our time together

and expecting to learn a lot from you

how about you?

3 questions

in pairs, tell each other

what's your role at Autodesk?

what's a recent experience (or book, movie, etc) you'd recommend?

what's a personal goal you have for this workshop?

then I'll ask each of you to report on your buddy...

what's next?

what's special about software?
why's it (mostly) so great?
why do things (sometimes) go wrong?
what tools do we have at hand?

website with slides etc

<https://essenceofsoftware.com/autodesk>