Introducing Thinking Bicycle

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Side projects are a great way to experiment with things you personally find interesting. They are a great way to learn new things, and to experiment with great ideas.

- You need one!
- Don't be worried about success, it's just a toy/experiment/learning experience/whatever.
- Do something out of your comfort zone.
- Do something you personally will find interesting.

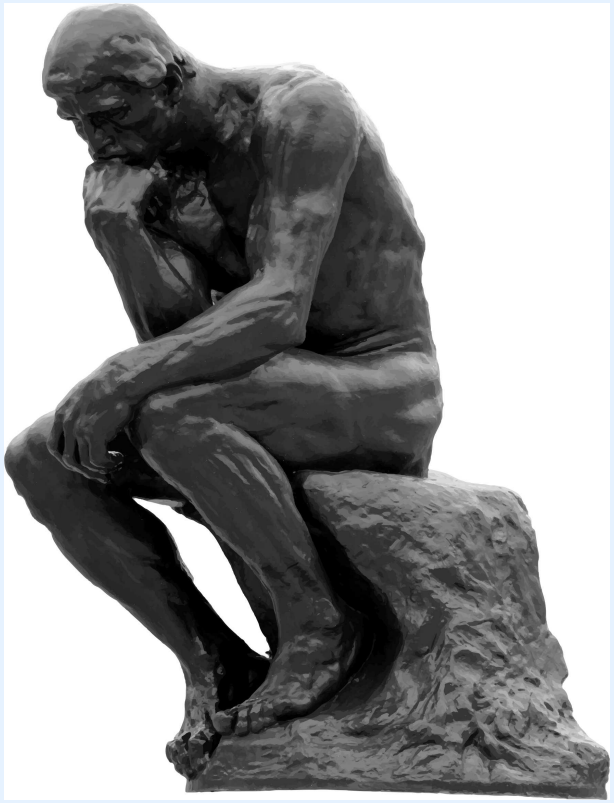
I think you should reach for the stars with your toy projects.

Because even if you fail, you'll probably come up with some cool stuff on the way.

I made a website!

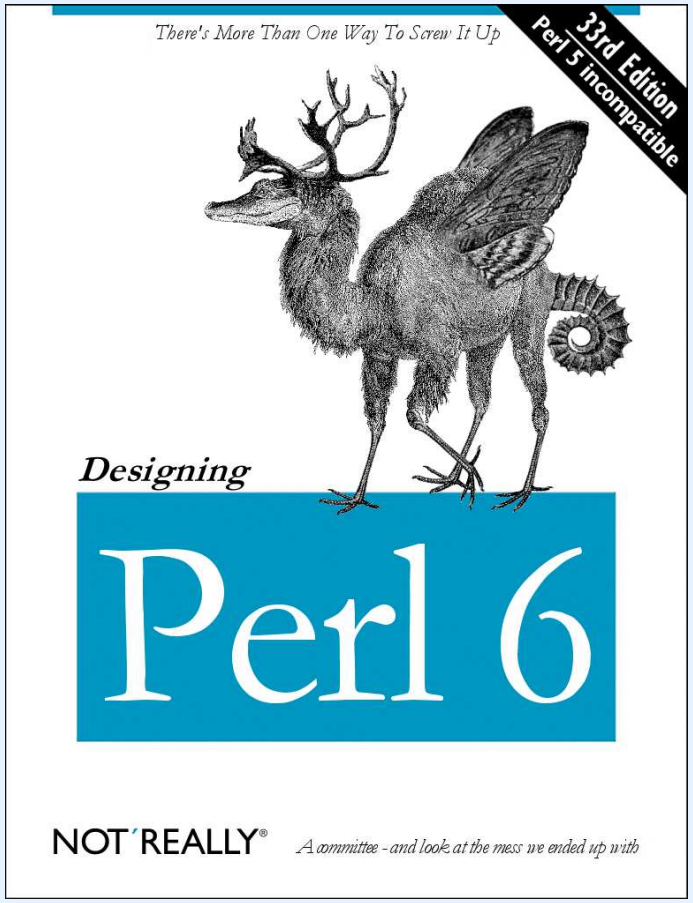
(It's pretty ugly currently, but it's not quite that bad.)

It's called Thinking Bicycle.



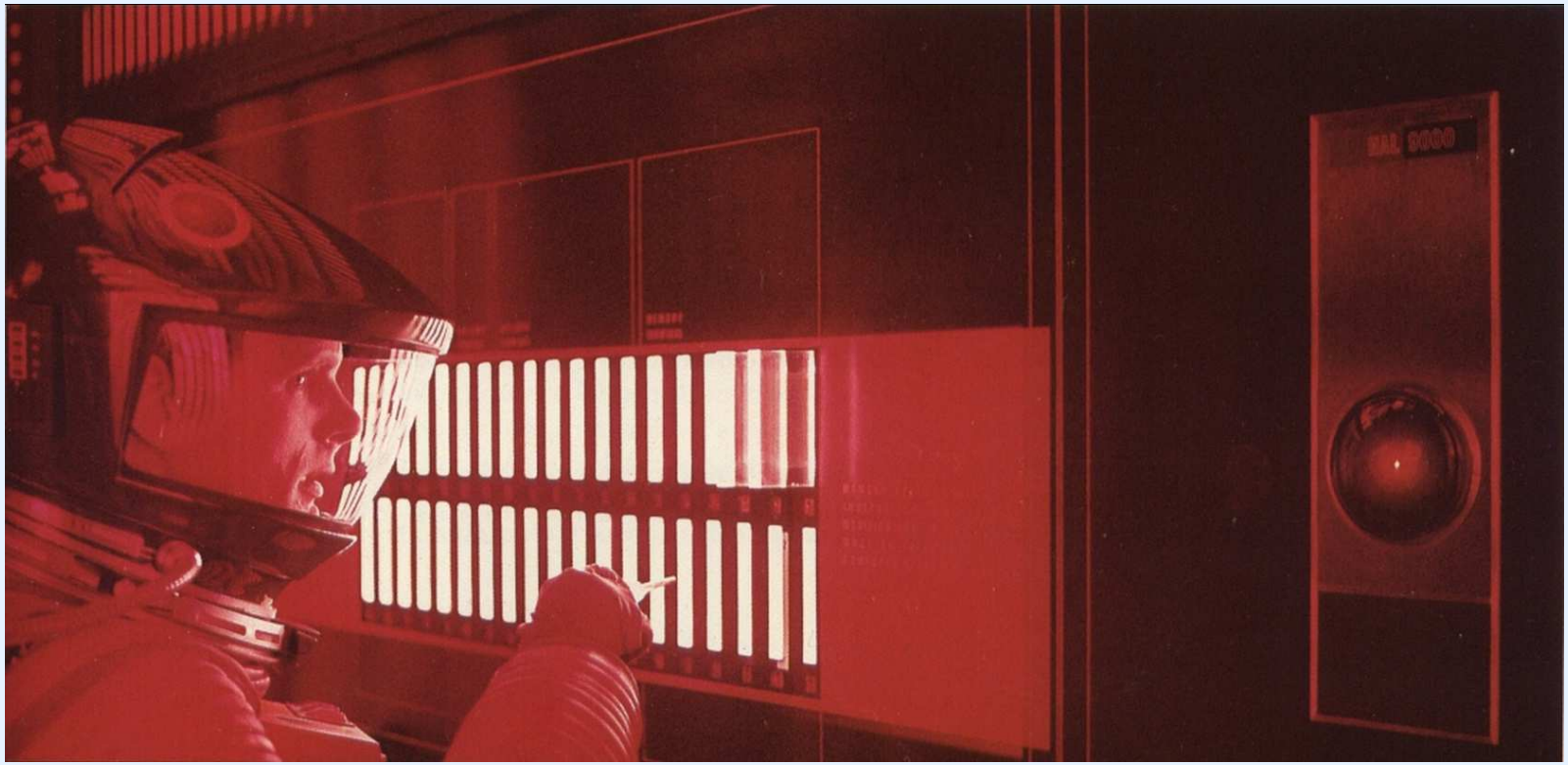
Like so many websites, it's eternally under construction.

I'm going to talk some about long-term goals, but I'm not trying to sell vaporware.



What was the original goal of this project? I've always been really interested in AI …

…Real AI.



If it can't become a murdering Machiavellian psycopath, it's not ***real*** AI.

But we can't make a "Real" AI.

I've started from scratch three times with this project, but I think I'm on the right track now.

ACT V.

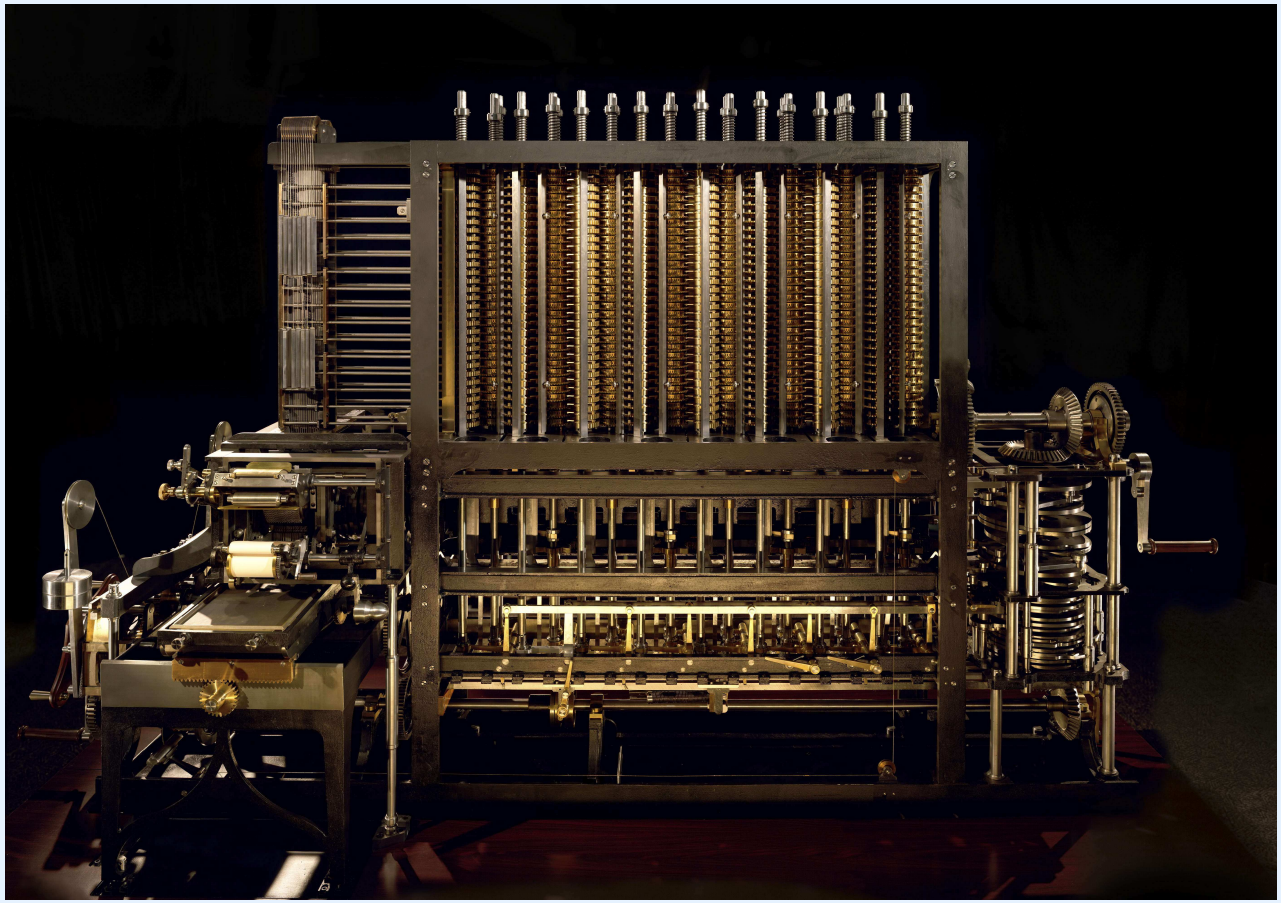
SCENE I.—*A Room in the* Garter Inn.

Enter FALSTAFF *and Mistress* QUICKLY.

Falstaff.

PR'YTHEE, no more prattling:—go. I'll hold: this is the third time; I hope good luck lies in odd numbers. Away, go; they say there is divinity in odd numbers, either in nativity, chance, or death.—Away.

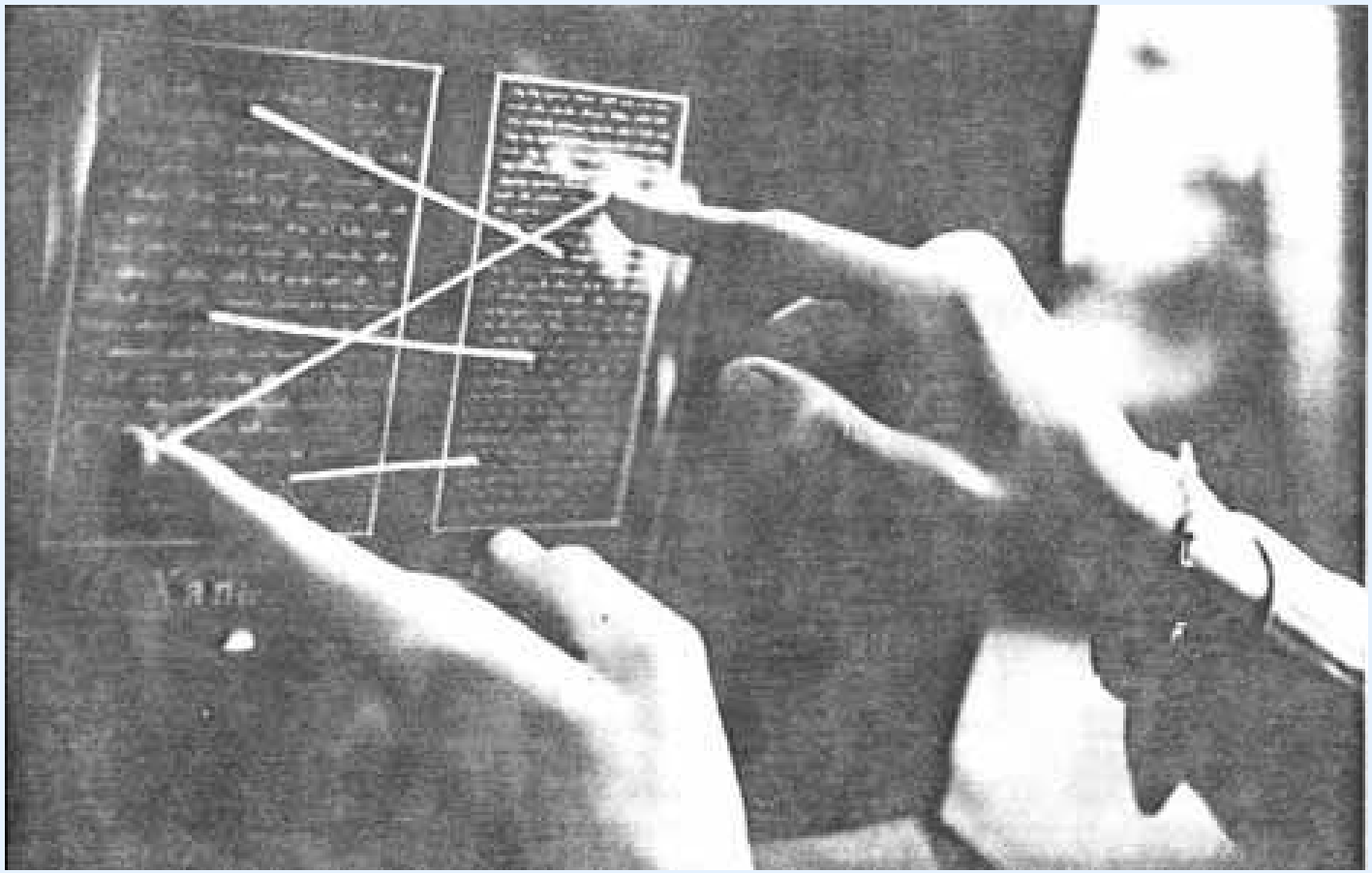
We need programmability everywhere.



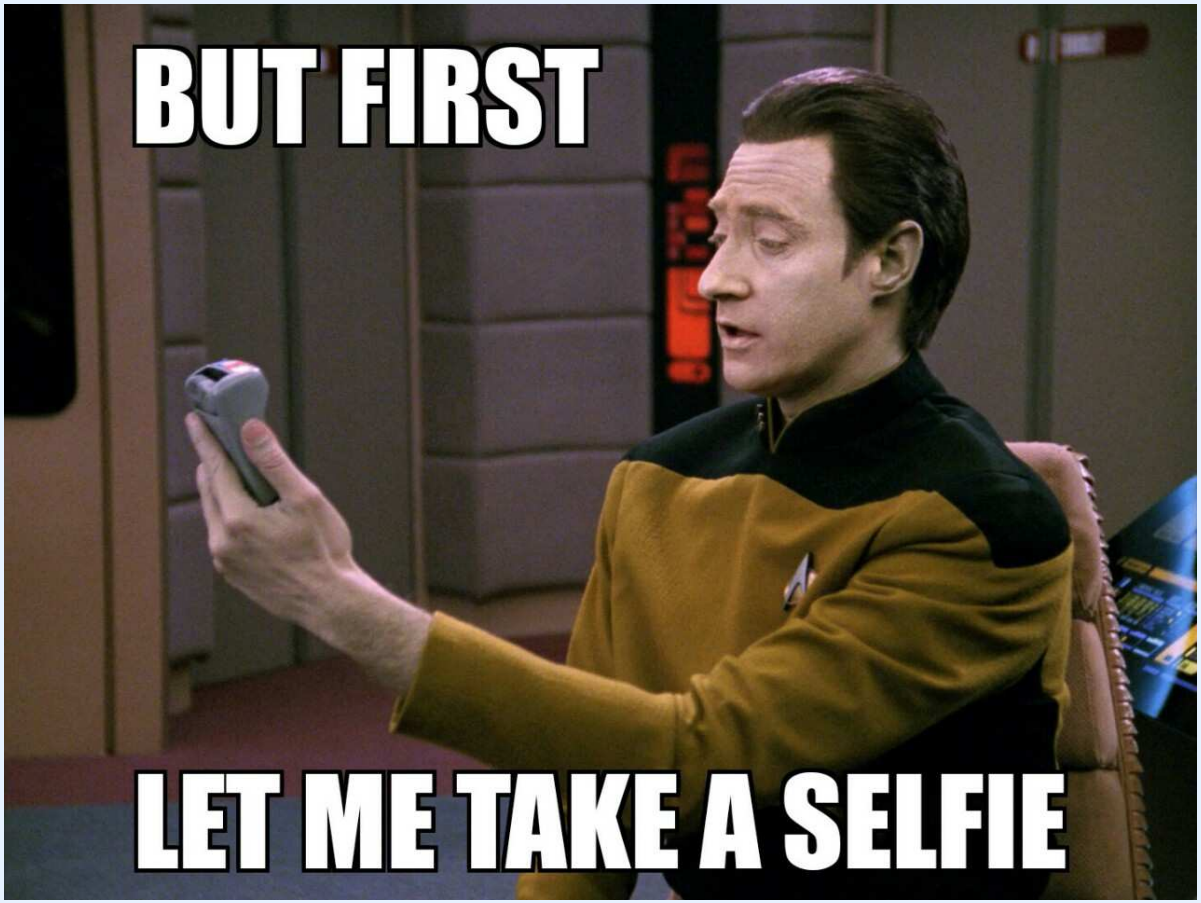
We need a whole lot of human-curated information, all interconnected.

- Links
- Keywords
- Tags, bookmarks, shares
- Forums, chats, messages
- Notes
- Databases
- Spreadsheets
- …

We need xanalogical transclusions everywhere.



We need lots of real data about everything.



And then we can finally get started on the future of human-computer interaction.

Currently, text on the Web sucks.

- Plain text sucks.
- Unicode sucks.
- Markdown sucks.
- Wikis suck.
- HTML **really** sucks.

How do we make it not suck?
Maybe even awesome?
Make it fully programmable.

Teepee:
A home for everywhere you choose to wander.

Teepee:
A programming language for everything you choose to type.

Paragraphs in Teepee

```
1 This is the first paragraph.
2 This is also the first paragraph.
3
4 This is the second paragraph.
5 This is also the second paragraph.
```

Functions in Teepee

```
1 Some text ...
2 Text \some-function{foo bar baz ...} text ...
3 Some text ...
```

Literals

Backslash	`\-/`	/
Opening Brace	`\-(`	{
Closing Brace	`\)-`	}
Opening Bracket	`\((`	[
Closing Bracket	`\))`	]
Pipe	`\pipe`	|
Backquote	`\'`	`
Dollar	`\dollar`	$
Squiggle	`\squiggle`	~

Text Formatting

Bold Text

Normal text **bold text** normal text.

```
Normal text \b{bold text} normal text.
```

Italic Text

Normal text *italic text* normal text.

```
Normal text \it{italic text} normal text.
```

Strike Through Text

Normal text ~~strike through text~~ normal text.

```
Normal text \s{strike through text} normal text.
```

Underlined Text

Normal text underlined text normal text.

```
Normal text \u{underlined text} normal text.
```

Teletype Text

Normal text `teletype text` normal text.

```
Normal text \tt{teletype text} normal text.
```

Subscripts

Normal text $\text{sub}_{\text{scripts}}$ normal text.

```
Normal text sub\sub{scripts} normal text.
```

Superscripts

Normal text super$^{\text{scripts}}$ normal text.

```
Normal text super\sup{scripts} normal text.
```

Bigger Text

Normal text bigger text normal text.

```
Normal text \big{bigger text} normal text.
```

Smaller Text

Normal text <small>smaller text</small> normal text.

```
Normal text \small{smaller text} normal text.
```

Commands Can Nest

Normal text ***bold and italic text*** normal text.

```
Normal text \it{\b{bold and italic text}} normal text.
```

Bullet Lists

- dogs
- cats
- rabbits

```
\ul{
  \li{dogs}
  \li{cats}
  \li{rabbits}}
```

Numbered Lists

1. gold medal
2. silver medal
3. bronze medal
4. losers ...

```
\ol{
  \li{gold medal}
  \li{silver medal}
  \li{bronze medal}
  \li{losers ...}}
```

Math

Constants

π: `\pi`: 3.14159.

e: `\e`: 2.718281828499045.

i: `\i`: not yet.

Addition

Let's do addition: 15.

```
Let's do addition: \+{1 2 3 4 5}.
```

Subtraction

Let's do subtraction: 38.

```
Let's do subtraction: \-{2016 1978}.
```

Multiplication

Let's do multiplication: 15,300.

```
Let's do multiplication: \*{7.65 40 50}.
```

Division

Let's do division: 1,760.

```
Let's do multiplication: \/{5280 3}.
```

Exponentiation

Exponents: 10^{592}.

```
Exponents: $10^{48 3}$.
```

Modulo

Modulo: 0.4.

```
Modulo: \%{10 4}.
```

Trigonometry

$$\sin(\pi) = 0$$

```
\sin{\pi}
```

$$\cos(\pi) = -1.0$$

```
\cos{\pi}
```

$$\tan(\pi) = 0$$

```
\tan{\pi}
```

It's More Fun to Compute

Boolean And

$\text{true} \wedge \text{false} = \text{false}$

```
\and{true false}
```

$\text{true} \wedge \text{true} = \text{true}$

```
\and{true true}
```

Boolean Or

true $\vee$ false = true

```
\or{true false}
```

true $\vee$ true = true

```
\or{true true}
```

false $\vee$ false = false

```
\or{false false}
```

Boolean Not

$\neg$ true = false

```
\not{true}
```

$\neg$ false = true

```
\not{false}
```

Variables

4077
13
4064

```
1 \def{x 4077}
2 \def{y 13}
3 \-{\x \y}
```

Looping

Let's look at the webpage …

Short-Term Goals

- HTTPS
- Emailed password resets
- User groups and private sharing
- Lambdas
- Includes
- Chatrooms
- Cardboards like Trello
- REPLs? Maybe?
- …

Questions?