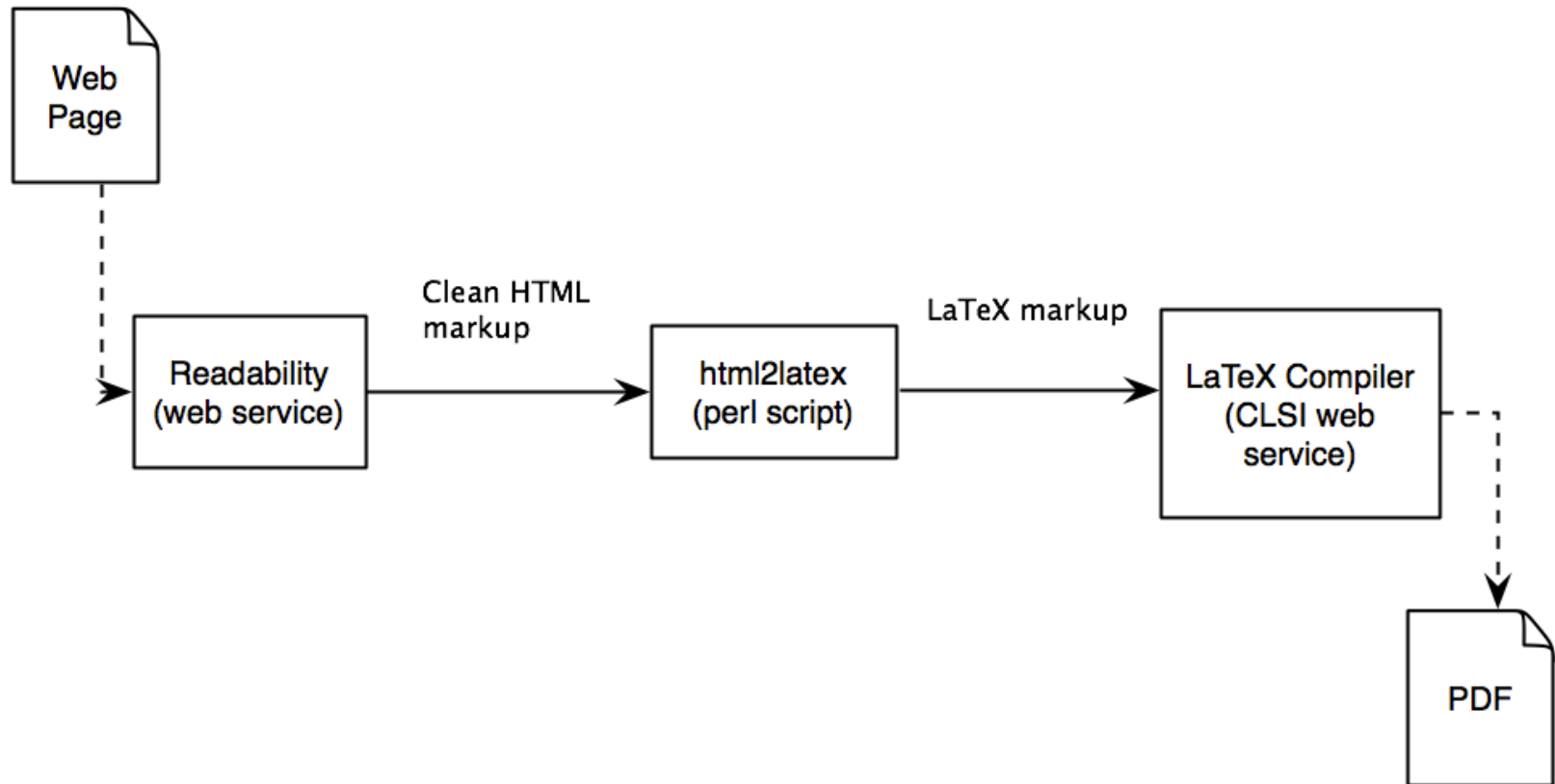




# Convert Web Page to PDF Using LaTeX

- Leverage the typesetting capabilities of LaTeX to produce nice-looking PDF versions of web pages
- Bookmarklet demo:  
[http://www.allcapslock.com/web2latexpdf/index\\_full.htm](http://www.allcapslock.com/web2latexpdf/index_full.htm)

# 'web2latexpdf' bookmarklet



# Hackfest 2010 in Winnepeg

- Access 2010
- Nice-Looking Printed LibraryThing Catalogue: "It's possible to export from LibraryThing in custom spreadsheet formats--but what if you want a nice-looking printed catalogue for a small special library? Use OpenOffice.org or LaTeX, with a scripting language, to generate an attractive printed catalogue."

Your Title Goes Here

As generated from LibraryThing  
With Ruby, ERB, and B<sup>2</sup>T<sub>E</sub>X

1 Author Listing

'AUTHOR (LAST, FIRST)' 'PUBLICATION INFO' 'COLLECTIONS'	'TITLE'	'DDC'
ADAMSON, JEREMY From Ocean to Ocean: Nineteenth Century Water Colour Painting in Canada <i>Art Gallery of Ontario (1976), Paperback</i>		759.11 ADA
ADAMSON, JEREMY ELWELL Lawren S. Harris: Urban scenes and wilderness landscapes, 1906-1930 : Art Gallery of Ontario, January 14-February 26, 1978 <i>Art Gallery of Ontario (1978), Unknown Binding, 231 pages</i>		759.11 HAR ADA
ADDISON, OTTELYN AND ELIZABETH HARWOOD The Algonquin Years <i>Ryerson Press (1969), Edition: 2nd Printing, Hardcover, 98 pages</i>	Tom Thomson.	759.11 THO ADD
ART GALLERY OF WINDSOR The Logic of Nature, The Romance of Space : Elements of Canadian Modernist Painting <i>Robert McLaughlin Gallery / ABC Art Books Canada (2010), Edition: First, Hardcover, 200 pages</i>		759.11 WIN
ASHLEY, CHARLES AND JAMES CRIPPEN Fifty Years of Photography By Ashley and Crippen <i>Ashley and Crippen, 1965 (1965), Paperback</i>		779.2 ASH
ATANASSOVA, KATERINA F. H. Varley. Portraits into the Light <i>Dundurn (2007), Edition: 1st Ed., Hardcover</i>		759.11 VAR ATA

1







# Print Formatting of Web Pages

- Website publishers:
  - Print CSS
- End users:
  - Browser settings
  - Various ‘save page as pdf’ utilities
  - Copy and paste into MS Word
- Usually when printing a web page, you’re using rendering/typesetting/layout mechanisms intended for the web (not the printed page)

The nurse had wrapped my brother in a blue flannel blanket and was just about to hand him to his mother when she whispered, "Oh, God, there's another one," and out I slid, half dead. I then proceeded to die in earnest, going from slightly pink to a dull gray-blue, at which point the nurse tried to scoop me into a bed warmed by lights. She was stopped by the doctor, who pointed out my head and legs. Stepping between me and the mother, the doctor addressed her.

"Mrs. Lasher, I have something important to say. Your other child has a congenital deformity and may die. Shall we use extraordinary means to salvage it?"

She looked at the doctor with utter incomprehension at first, then cried, "No!"

While the doctor's back was turned, the nurse cleared my mouth with her finger, shook me upside down, and swaddled me tightly in another blanket, pink. I took a blazing breath.

"Nurse," the doctor said.  
"Too late," she answered.

I was left in the nursery with a bottle strapped to my face while the county tried to decide what to do with me. I was too young to be admitted to any state-run institution, and Mr. and Mrs. George Lasher refused to have me in their house, which was at the edge of a nearby town, where Mr. Lasher owned and ran a farm-implements dealership.

The night janitor at the hospital, a woman from the reservation named Betty Wishkob, asked the head maternity nurse for permission to hold me on her break. While cradling me, with her back to the observation window, Betty also nursed me—she was still nursing her youngest child at home. As she fed me, she molded and rounded my skull with her powerful hand. Nobody in the hospital knew that she was feeding me at night, or that she was doctoring me and had made up her mind to keep me. This was five decades ago. When Betty asked if she could take me home, there was relief and not a lot of paperwork involved, at least in the beginning. So I was saved, and grew up with the Wishkobs. I lived on the reservation and eventually was educated as my Chip-

pewa siblings were—first at a school run by the Catholic mission and later at one run by the government.

Around the age of two, I was taken away for the first time and placed alone in a room. I remember the smell of disinfectant and what I would now call despair. Into this disinfected despair, there came a presence, someone or something, who grieved with me and held my hand. That presence would come to me again at other moments in my life. Its return is partly what this story is about.

The second time that an officious welfare officer decided to find a more suitable home for me, I was four. As Betty argued with her in the dust of our yard, the matted hackles on the dog's back rose. I stood beside Betty and held her skirt—green cotton. I pressed the fine weave between my fingers and hid my face in its scent of heated cloth. Then I was in the back seat of a car that sped soundlessly in some infinite direction. I slept. I woke alone in another white room. My bed was narrow, and the sheets were tucked tightly down, so that I had to struggle to get out. I sat on the edge of the bed for what seemed like a long time, waiting.

When you are little, you do not always know when you are screaming or crying—your feelings and all the sound that comes out of you are all one thing. I remember that I opened my mouth, that is all, and that I did not shut it until I was back with Betty.

Every morning until I was about eleven, Betty and her husband, Albert, tried to straighten me by stretching out my legs. They woke me before the other children and brought me into the kitchen. I drank a glass of thin, blue milk by the woodstove. Then Betty sat in a kitchen chair and put me in her lap. Albert sat across from us in another chair.

"Put your feet out, Tuffy," he said.

I put my feet in Albert's hands, and he pulled me one way while Betty pulled the other. Slowly, as I grew, my legs untwisted, though one was always a little shorter than the other. I was the youngest of their four children—it was Sheryl whom Betty had been nursing when she cared for me in the hospital. Their older son, Cedric, gave me the

name Tuffy because he knew that once I went to school I would get a nickname anyway. He didn't want it to be one that mocked my rolling walk or my head. My head—so misshapen when I was born that the doctor had diagnosed a birth defect—was still a bit flat on one side, where I had been crushed in the womb by my twin. But it had been shaped enough by Betty's squeezing and kneading that by the time I was old enough to look in a mirror I thought I was pretty.

Neither Betty nor Albert ever told me I was wrong; it was Sheryl who gave me the news.

"Tuffy, you are so ugly you're cute," she said.

I looked in the mirror the next chance I got and realized that she was telling the truth.

The house we lived in had a smell that permeates it still—old wood, onions, fried coot, the salty outdoors scent of children. Betty was always trying to keep us clean, and Albert was always getting us dirty. He took us into the woods and showed us how to spot a rabbit run and set a snare. We yanked gophers from their holes with loops of string and picked pail after pail of berries. We rode a mean little bucking pony, fished perch from a nearby lake, chug potatoes every year to make money for school clothes. Betty's job at the hospital had not lasted. Albert sold firewood, corn, squash. We never went hungry. Not long ago, I read a memoir by a man named Peter Razor, who was abandoned like me, only he ended up in an institution. He wrote of the one time that he remembered being held, and said that it remained one of the strangest and happiest moments of his life. I don't remember being held as something special. Which tells me that I must have been held so often that the sensation became a part of me, inseparable from my memory of the world.

I know that I was loved, because it was a complicated matter for Betty and Albert to claim me from the welfare system, though I had aided their efforts with my endless scream. A full adoption involved hiring a lawyer, which they didn't have the money to do. I was afflicted with nightmares of being

Psychologists spent the next few decades trying to identify this mechanism. They worked with mice, rats, fish, turtles, cats, and pigeons, then moved on to monkeys, children, and brain-damaged adults. They shocked their subjects with electrodes, strapped them into heated helmets, dunked them in water baths, and irritated them with insistent clicks, hoping to speed up or slow down their internal clocks. Hoagland believed that timing was a "unitary chemical process" tied to metabolism. But later studies suggested a hodgepodge of systems, each devoted to a different time scale—the cerebral equivalent of a sundial, an hourglass, and an atomic clock. "Mother Nature's a tinkerer instead of an engineer," Eagleman says. "She doesn't just invent something and check it off the list. Everything is layers on layers built on top of each other, and that provides tremendous robustness." Parkinson's disease can impair our ability to time intervals of a few seconds, for instance, but leave split-second timing intact.

Just how many clocks we contain still isn't clear. The most recent neuroscience papers make the brain sound like a Victorian attic, full of odd, vaguely labelled objects ticking away in every corner. The circadian clock, which tracks the cycle of day and night, lurks in the suprachiasmatic nucleus, in the hypothalamus. The cerebellum, which governs muscle movements, may control timing on the order of a few seconds or minutes. The basal ganglia and various parts of the cortex have all been nominated as timekeepers, though there's some disagreement on the details. The standard model, proposed by the late Columbia psychologist John Gibbon in the nineteen-seventies, holds that the brain has "pacemaker" neurons that release steady pulses of neurotransmitters. More recently, at Duke, the neuroscientist Warren Meck has suggested that timing is governed by groups of neurons that oscillate at different frequencies. At U.C.L.A., Dean Buonomano believes that areas throughout the brain function as clocks, their tissue ticking with neural networks that change in predictable patterns. "Imagine a skyscraper at night," he told me. "Some people on the top floor work till midnight, while some on the lower floors may go to bed early. If you studied the patterns long enough, you could tell the time just by looking at which lights are on."

Time isn't like the other senses, Eagleman says. Sight, smell, touch, taste, and hearing are relatively easy to isolate in the brain. They have discrete functions that rarely overlap: it's hard to describe the taste of a sound, the color of a smell, or the scent of a feeling. (Unless, of course, you have synesthesia—another of Eagleman's obsessions.) But a sense of time is threaded through everything we perceive. It's there in the length of a song, the persistence of a scent, the flash of a light bulb. "There's always an impulse toward phrenology in neuroscience—toward saying, 'Here is the spot where it's happening,'" Eagleman told me. "But the interesting thing about time is that there is no spot. It's a distributed property. It's metasensory; it rides on top of all the others."



## Just what kind of student was Donald Trump?

Justin Elliott — [www.salon.com](http://www.salon.com)

Donald Trump has been aggressively questioning Barack Obama's academic record, suggesting that the president was a "terrible student" who did not deserve to get in to Columbia University and Harvard Law School. While Trump has no evidence to back up these claims, there are strong indications that Trump has repeatedly inflated his own academic record — and that he used family connections to gain admission to the Wharton School at the University of Pennsylvania.

"I heard [Obama] was a terrible student, terrible. How does a bad student go to Columbia and then to Harvard?" Trump asked in an interview last month. "I'm thinking about it, I'm certainly looking into it. Let him show his records."

But an examination of Trump's own academic record yields a distinctly unflattering picture of the celebrity businessman. Among other things, Trump has allowed the media to report for years that he graduated first in his class at Wharton, despite strong evidence that this is not true and indications that he was, in fact, an undistinguished student.

Trump did not go to Wharton's prestigious MBA program. Rather, he received an undergraduate degree offered by Wharton to University of Pennsylvania students. And Trump didn't attend Wharton for a full four years. Instead, he transferred there after spending his first two undergraduate years at Fordham, the Jesuit university in the Bronx.

"I decided that as long as I had to be in college, I might as well test myself against the best," he explains in his 1989 autobiography, "The Art of the Deal."

So how did Trump get into Wharton?

Gwenda Blair's book on the Trump family reports that he gained admission as a transfer student only because of "an interview with a friendly Wharton admissions officer who was one of Freddy's old high school classmates." (Freddy is Donald's older brother.) Trump was also the son of one of the wealthiest New York businessmen of the era, the developer Fred Trump. That certainly couldn't have hurt his admission chances.

Blair also reports in her Trump biography that his

grades at Fordham were merely "respectable."

Trump has consistently portrayed of himself as an exceptional student at Wharton. In March, for example, he explained his doubts about the president's birthplace by saying, "Let me tell you, I'm a really smart guy. I was a really good student at the best school in the country."

In 2004, Trump told CNN, "I went to the Wharton School of Finance, I got very good marks, I was a good student, it's the best business school in the world, as far as I'm concerned."

Over the years, myriad profiles of Trump have claimed that he was "first in his class" at Wharton in 1968.

Here's what the New York Times reported in a January 1973 piece:

The Times repeated the "fact" again in a 1976 profile, "Donald Trump, Real Estate Promoter, Builds Image As He Buys Buildings":

The clear narrative being presented is of Trump as an intellectual heavyweight — starting a business at age 12, first in his class at Wharton, "the smartest person I know." Who told the Times reporters that Trump graduated first in his class? It's not clear, though Trump himself is an obvious possibility. We also know that Trump, a voracious consumer of media coverage of himself, would almost certainly have seen these references to his graduating "first in his class."

The "fact" that Trump graduated first in his class made its way into various books, magazines, and websites.

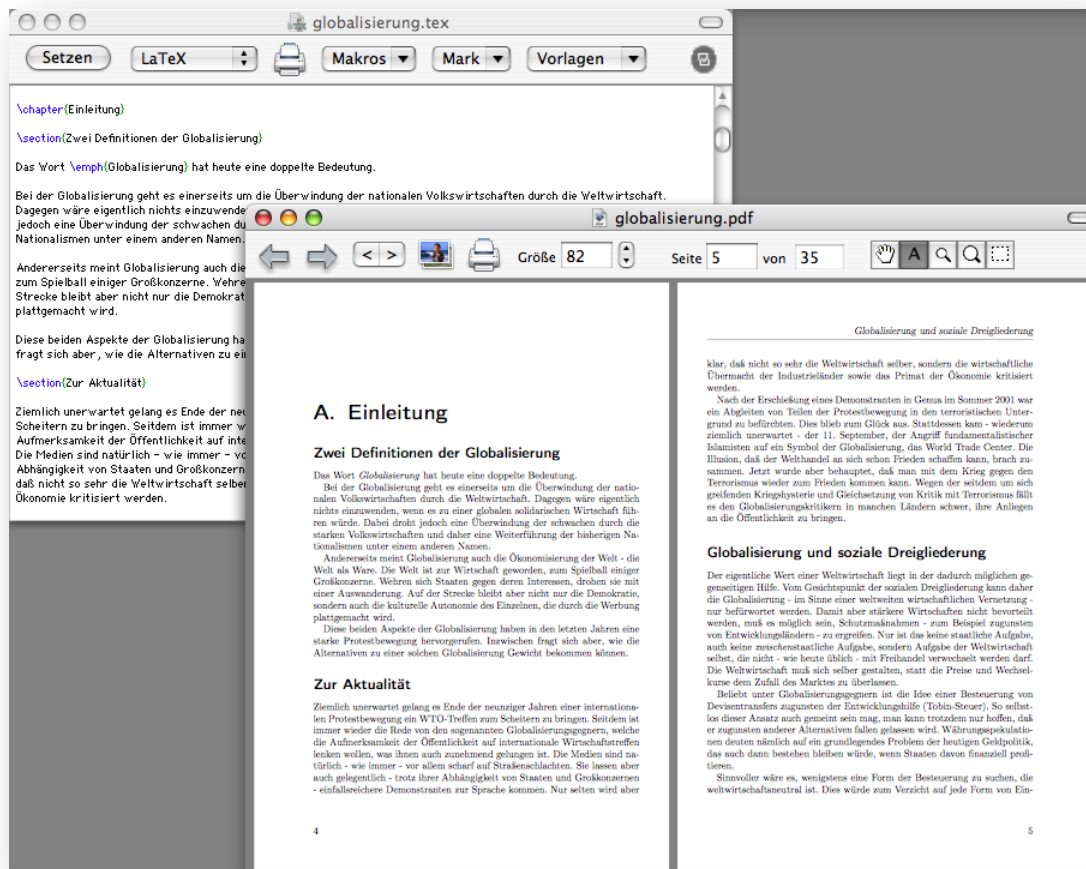
So what's the truth about Trump's record at Wharton?

Writing in the New York Times magazine in 1984, William Geist reported that "the commencement program from 1968 **does not list him as graduating with honors of any kind**," even though "just about every profile ever written about Mr. Trump states that he graduated first in his class at Wharton in 1968."

The writer Jerome Tuccille reported in his 1985 biography of Trump that while "it has been reported that he graduated first in the class ... Donald denied that he ever made such a claim. **Actually he was not among the honor students that year.**" "Emphasis added.

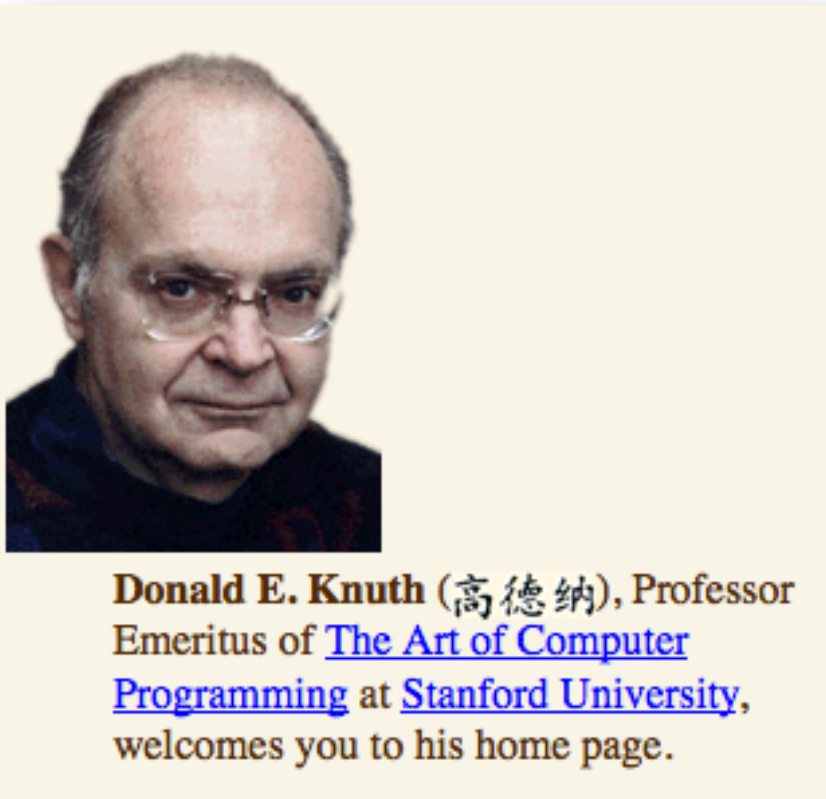
Tuccille continues:

# TeX/LaTeX



- TeX is a typesetting system first released in 1978
- LaTeX is a document markup language and document preparation system for TeX.

# TeX/LaTeX



*“( No hyphenation,  
kerning or leading.  
Knuth and Liang  
solved this problem  
decades ago... That  
lack is what makes  
web typography  
ugly”  
[hacker news]*

# Line Breaking Algorithm

The paragraph below is set using a JavaScript implementation of the classic Knuth and Plass algorithm as used in  $\text{T}_{\text{E}}\text{X}$ . The numbers on the right of each line are the stretching or shrinking ratio compared to the optimal line width. This example uses a default space of  $\frac{1}{3}$  em, with a stretchability and shrink-ability of  $\frac{1}{6}$  em and  $\frac{1}{9}$  em respectively.

In olden times when wishing still helped one, there lived a	2.267
king whose daughters were all beautiful; and the youngest was	0.667
so beautiful that the sun itself, which has seen so much, was	1.576
astonished whenever it shone in her face. Close by the king's	1.400
castle lay a great dark forest, and under an old lime-tree in the	0.889
forest was a well, and when the day was very warm, the king's	0.722
child went out to the forest and sat down by the fountain; and	1.000
when she was bored she took a golden ball, and threw it up on	0.769
high and caught it; and this ball was her favorite plaything.	0.003

The following paragraph is set by your browser using `text-align: justify`. Notice the lines in the paragraph set by your browser have, on average, greater inter-word spacing than the canvas version, which is successful at minimizing the inter-word spacing over all lines.

In olden times when wishing still helped one, there lived a	1.150
king whose daughters were all beautiful; and the youngest	1.500
was so beautiful that the sun itself, which has seen so much,	0.636
was astonished whenever it shone in her face. Close by the	1.050
king's castle lay a great dark forest, and under an old lime-tree	0.045
in the forest was a well, and when the day was very warm, the	0.077
king's child went out to the forest and sat down by the	2.182
fountain; and when she was bored she took a golden ball, and	0.273
threw it up on high and caught it; and this ball was her	1.875
favorite plaything.	0.000



# Hyphenation (hyphenator.js)

## I

The Nellie, a cruising yawl, swung to her anchor without a flutter of the sails, and was at rest. The flood had made, the wind was nearly calm, and being bound down the river, the only thing for it was to come to and wait for the turn of the tide.

The sea-reach of the Thames stretched before us like the beginning of an interminable waterway. In the offing the sea and the sky were welded together without a joint, and in the luminous space the tanned sails of the barges drifting up with the tide seemed to stand still in red clusters of canvas sharply peaked, with gleams of varnished sprits. A haze rested on the low shores that ran out to sea in vanishing flatness. The air was dark above Gravesend, and farther back still seemed condensed into a mournful gloom, brooding motionless over the biggest, and the greatest, town on earth.

The Director of Companies was our captain and our host. We four affectionately watched his back as he stood in the bows looking to seaward. On the whole river there was nothing that looked half so nautical. He resembled a pilot, which to a seaman is trustworthiness personified. It was difficult to realize his work was not out there in the luminous estuary, but behind him, within the brooding gloom.

Between us there was, as I have already said somewhere, the bond of the sea. Besides holding our hearts together through long periods of separation, it had the ef-


# Kerning


**WAR**  
**WAR**  
**WAR**

# LaTeX is not web friendly

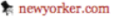
- Need to know TeX/LaTeX markup language to produce documents typeset with TeX
  - Resists wysiwyg
- Can convert HTML to LaTeX, but...
  - HTML needs to be POSH (Plain Old Semantic HTML)
- Stripped-down LaTeX package is +100mb

# Readability API

 Readability



**Read in Peace, Everywhere**  
Readability is a **web & mobile app** that zaps online clutter and **saves web articles** in a comfortable reading view. No matter where you are or what device you use, your reading will be there. ▶

 **The Possibilian**

by BURKHARD BILGER • APRIL 25, 2011

When David Eagleman was eight years old, he fell off a roof and kept on falling. Or so it seemed at the time. His family was living outside Albuquerque, in the foothills of the Sandia Mountains. There were only a few other houses around, scattered among the bunchgrass and the cholla cactus, and a new construction site was the Eagleman boys' idea of a perfect playground. David and his older brother, Joel, had ridden their dirt bikes to a half-finished adobe house about a quarter of a mile away. When they'd explored the rooms below, David scrambled up a wooden ladder to the roof. He stood there for a few minutes taking in the view—west across desert and subdivision to the city rising in the distance—then walked over the newly laid tar paper to a ledge above the living room. “It looked stiff,” he told me recently. “So I stepped onto the edge of it.”

In the years since, Eagleman has collected hundreds of stories like his, and they almost all share the same quality: in life-threatening situations, time seems to slow down. He remembers the feeling clearly, he says. His body stumbles forward as the tar paper tears free at his feet. His hands stretch toward the ledge, but it's out of reach. The brick floor floats upward—some shiny nails are scattered across it—as his body rotates weightlessly above the ground. It's a moment of absolute calm and eerie mental acuity. But the thing he remembers best is the thought that struck him in midair: this must be how Alice felt when she was tumbling down the rabbit hole.

Eagleman is thirty-nine now and an assistant professor of neuroscience at Baylor



# LaTeX Compiler as Web Service

## The Common LaTeX Service Interface

The Common LaTeX Service Interface is a web service providing access to a LaTeX compiler.

[Get Developer Token](#)

### How to get access

[Documentation](#)

To use the CLSI you will need a developer token. To request a token please email me at [james@scribtex.com](mailto:james@scribtex.com).

[Download Code](#)

### An example request

```
<?xml version="1.0" encoding="UTF-8"?>
<compile>
  <token>e491fa5a2a7b0021d71bd0a5786de4fe</token>
  <resources root-resource-path="book.tex">
    <resource path="book.tex">
      <![CDATA[
\documentclass{report}

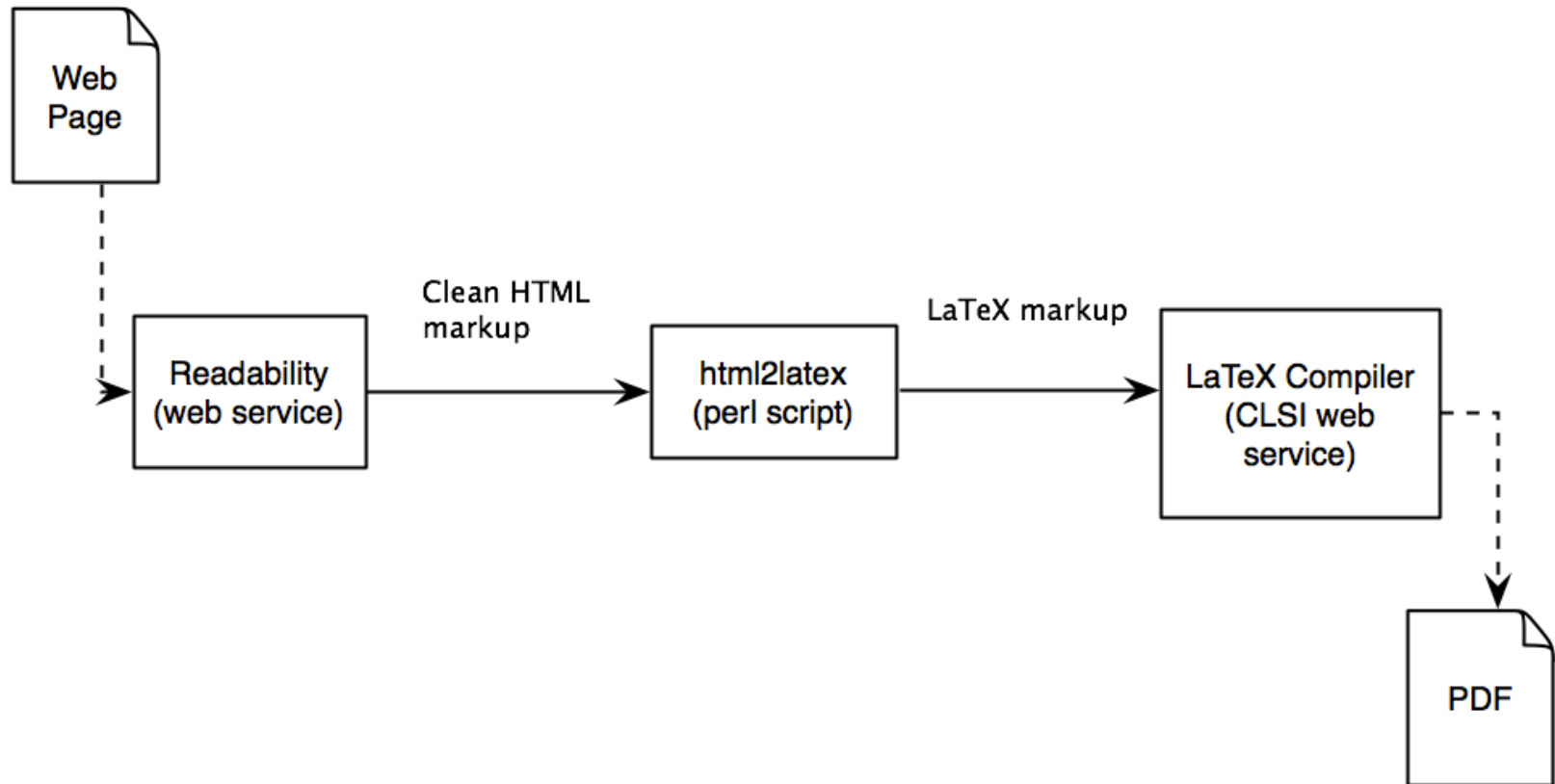
\begin{document}

Hi, this is an example of LaTeX in use.

\input{chapters/chapter1.tex}

\end{document}
]]>
    </resource>
    <resource url="http://www.example.com/files/chapters/chapter1.tex"
path="chapters/chapter1.tex" modified="Sat Jan 16 15:33:07 +0000 2010">
    </resource>
  </resources>
</compile>
```

# 'web2latexpdf' bookmarklet



# Tools

- Readability API (arc90)
- CLSI: Common LaTeX Service Interface (ScribTeX)
- Html2latex perl script (Geometry Center, University of Minnesota)
- I wrote the glue script written in Perl (<200 lines)

“Why can’t a web page be more like a book?”

