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 Intro
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What's this talk about?

o Show the current state of web critics.
o Show what we have to circumvent this.
o Give ideas how we can make the web a better place.

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  WWW
=====
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"The WorldWideWeb (W3) is a wide-area hypermedia information retrieval
 initiative aiming to give universal access to a large universe of
 documents."
        - Tim Berners-Lee

Keywords:
        o Â»hypermediaÂ«
        o Â»information retrievalÂ«
        o Â»universal accessÂ«

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 Hypermedia
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         HTML - parser
         CSS - parser
         Javascript - parser and runtime
         3D and substandards - hardware-dependency
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Information Retrieval
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HTTP is too complex to parse but fits its usage well.

WebSocket? Another ghost in the town. But Google is the only market power that could change HTTP.

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 Universal Access
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If you need a quad core to retrieve basic information this is not true
anymore.
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What is needed to draw a pixel through the web
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1.) Parse some URI.
2.) Connect to the webserver.
3.) Send a state-less request adding pixel state through cookies.
4.) Retrieve the HTML.
5.) Parse the HTML.
6.) Do the same steps for all the dependencies.
7.) Parse CSS/Javascript/whatever.
8.) Run the required dependencies in your runtime and interact via the big DOM model.
9.) Somewhen draw something for the user. Do premature optimisation by outputting half-drawn layouts because dependencies haven't been downloaded yet.
10.) ...
11.) Be the main cause of global warming. (Not really.)

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  What's the suckless answer?
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Not just one. Many.
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 surf
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o A compatibility layer to the web.
o Works and is tested.
o Needs more integration with ideas of this talk.
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Idea #1: A real commandline interface?
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cmd -a val1 -b -c val3

gets

GET /cmd?-a=val1&-b&-c=val3
```

Output: Simple text stream of command output.

Problem: Mass adoption does not happen. Sheep follow the shepherd.

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 Idea #2: Write a script for every website.
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o google(1)     # Google search
o ddg(1)        # DuckDuckGo search
o cclive(1)     # Play flash videos
o translate(1)  # Use Google Translate for translations
o curconv(1)    # Use Google Finance to convert currencies.

They are domain-specific but work.

Problem: Every website needs a new script. Website providers can easily
         change their API.
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 Idea #2: Abandon all hope, use Gopher.
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o Gopherfs works
o easy to parse
o superb structurized directory tree

Problems:
        o no MIME types (yeah, just 255 possibilities of selector types)
        o no images
        o will not get any mass adoption
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 Idea #3: Wait for Google to know what we want.
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o It won't be what we want. We will have to adapt to Google.
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  Idea #4: Make the web parseable.
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Python mechanize // Perl mechanize
        o works very well
        o add huge dependencies due to the prototyping language

libxml2 // xmlstarlet:
        o they removed the HTML parsing compatibility so you are forced to add
          DTDs - hell

sed + curl:
        o does not parse structured data that well

==> Write suckless tools to handle commandline web sessions.
        o surf integration?
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 Idea #4: Javascript is ruining our life.
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o Most Javascript has a backend which can be accessed and parsed more easily
  than running a Javascript VM.
o We are running Python, Perl and Ruby in our daily life, so this won't hurt
  speed too much.
o Some people use node.js to run daemons.

==> Easy Javascript / DOM access from the commandline is needed.
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 Idea #4: My theory.
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o Write example scripts.
o Make the level of writing your own scripts lower.
o Get the masses of people to work for us.
o Make a simple public repository for scripts.
        o Search for domain scripts with a simple utility.
              o Automatic download?
              o surf integration?
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 Idea #4: Websites that need scripts.
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o Wikipedia
o Google News
o suckless.org
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  Example of web script usage
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        ddg youtube atb what about us \
              | head -n 1 \
              | xargs quvi --exec "mplayer %%u"
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 Discussion
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o Anyone has done similar work?
        o You want to share your scripts?
o Anyone knows some Javascript VM internals to add some commandline interface
  for DOM?
o Who wants to lead this project?
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