F**get the Web
http://flic.kr/p/8JS7km

lanyrd.com/

lanyrd.com
the social conference directory

Full Frontal 2011
JavaScript conference

11 NOVEMBER 2011

http://2011.full-frontal.org/

Save to iCal / iPhone / Outlook / GCal

6 speakers

Glenn Jones
@glennjones

Brendan Dawes
@brendandawes

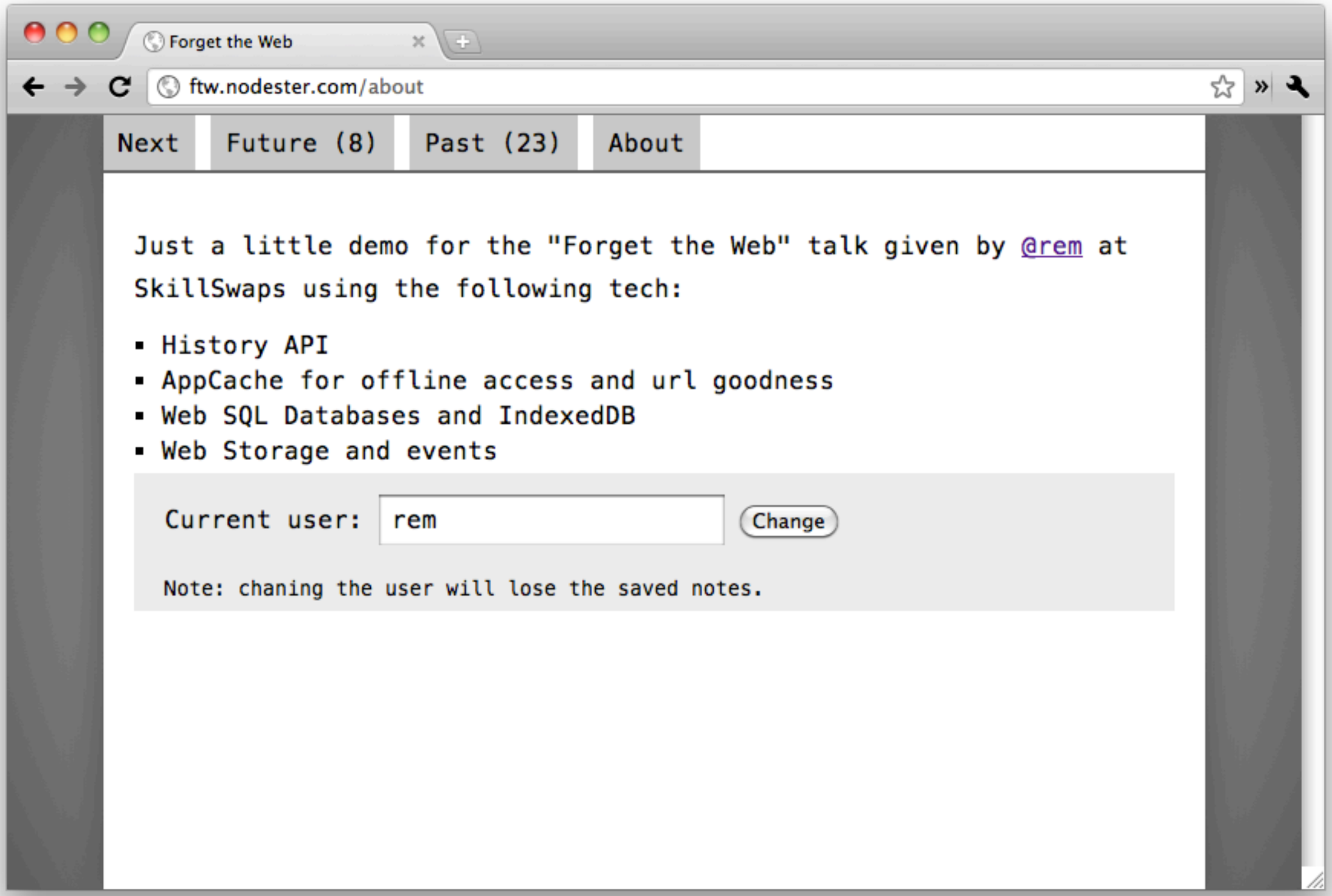
Jeremy Ashkenas
@jashkenas

Martin Hawksey
@mhawksey

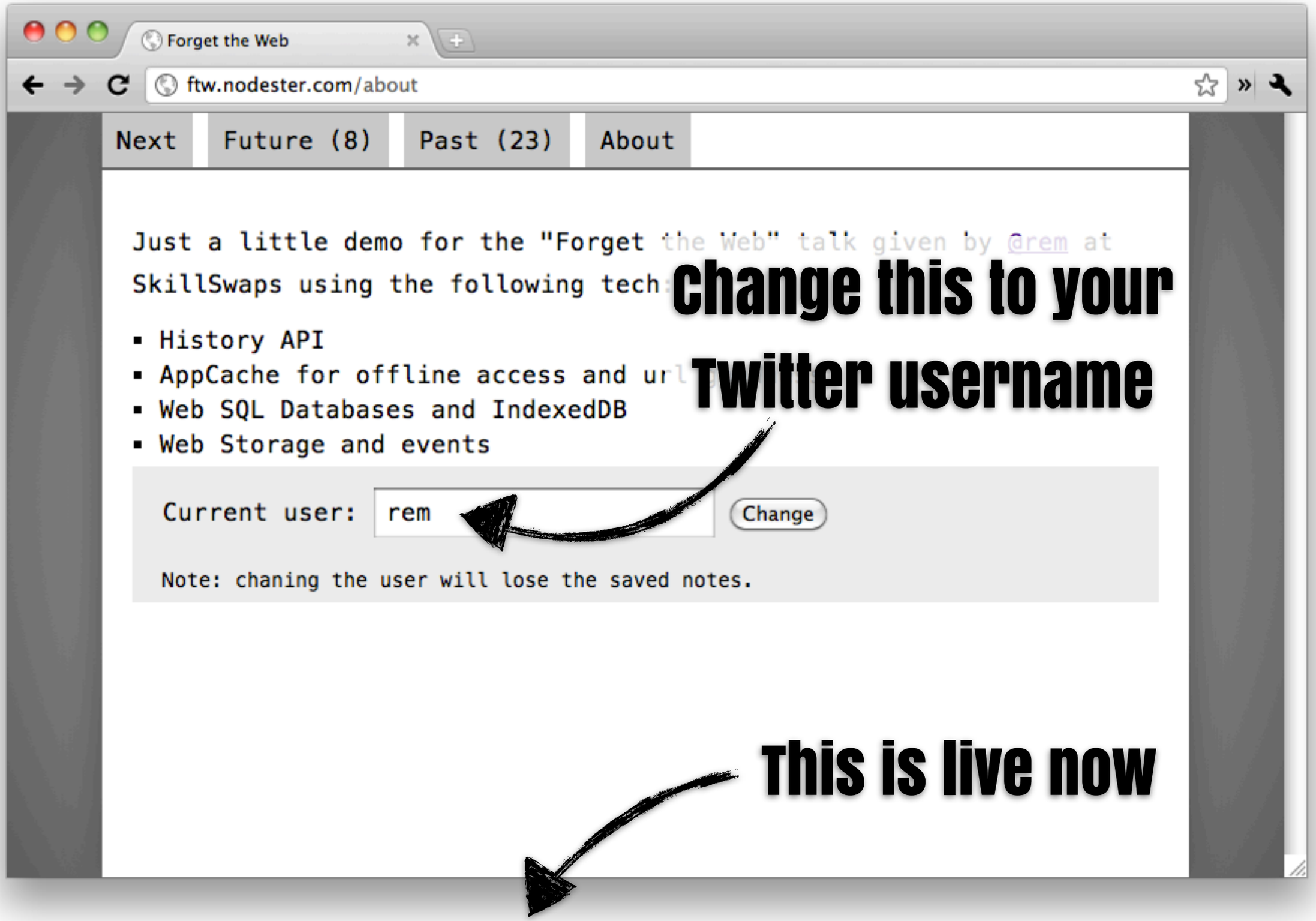
The Duke of York's Picturehouse

http://flic.kr/p/8Tsj3N

http://flic.kr/p/a25FHi



http://ftw.nodester.com



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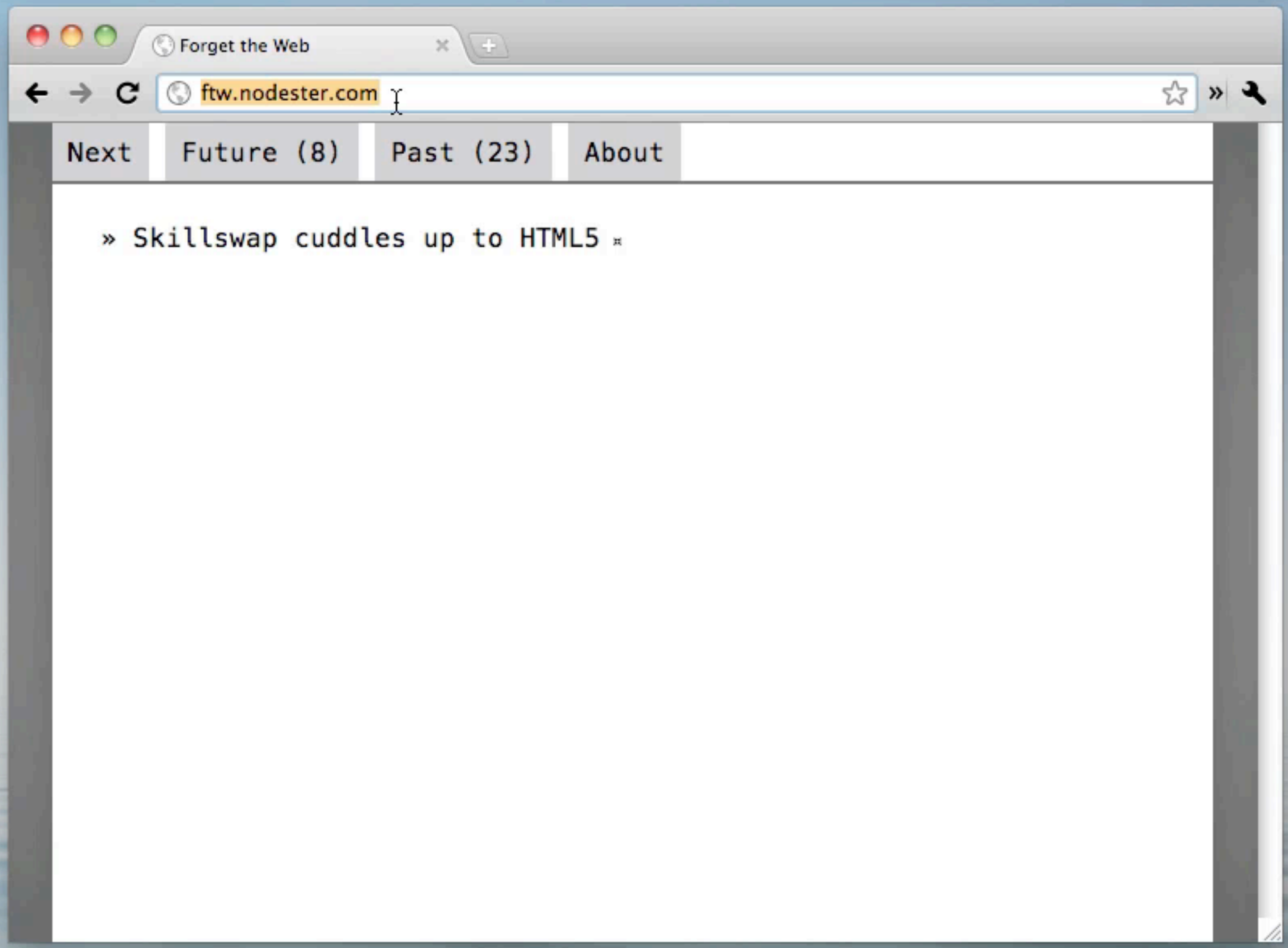

http://ftw.nodester.com

http://flic.kr/p/5rTP9f

- Web Storage
- IndexedDB (where available)
- Web SQL Databases
- History API
- offline manifest

http://flic.kr/p/5rTP9f

Honeywell
HIGH DENSITY 555
UNIVAC
ONYX
Think Tape
DATA D-3
The Coupon Manager
Verbatim
http://flic.kr/p/4HYNgX

- Web storage simple, and well supported IE8+
- Web SQL has good mobile support, but no Firefox
- IndexedDB gives us coverage

http://flic.kr/p/4HYNgX

Web storage

Cookies suck.

Not the edible kind, duh!

Cookies suck.

1. Code for cookies difficult
2. Date format is fugly
3. Limitations in size and number
4. Deleting doesn't really delete
5. Sessions leak...but not always!

Fuck cookies.

Sexy Storage FTW

http://flic.kr/p/3pBDzf

- localstorage no expiry required & persists
- sessionstorage doesn't leak
- Applied to document origin, i.e. scheme/host/port tuple
- Insanely simple API

```
setItem(key, value)
removeItem(key)
length
key(index)
clear()
```

```
var store = localStorage;
store.name = 'remy';
```

```
var store = localStorage;
store.name = 'remy';
delete store.name;
```

values are coerced

in to strings

values are coerced in to strings

Work around: JSON

(and http://www.json.org/json2.js)

Forget the Web

http://ftw.nodester.com/about

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Just a little demo for the "Forget the Web" talk given by @rem at SkillSwaps using the following tech:

- History API
- AppCache for offline access and url goodness
- Web SQL Databases and IndexedDB
- Web Storage and events

Current user: rem Change

Note: chaning the user will lose the saved notes.

Events Too

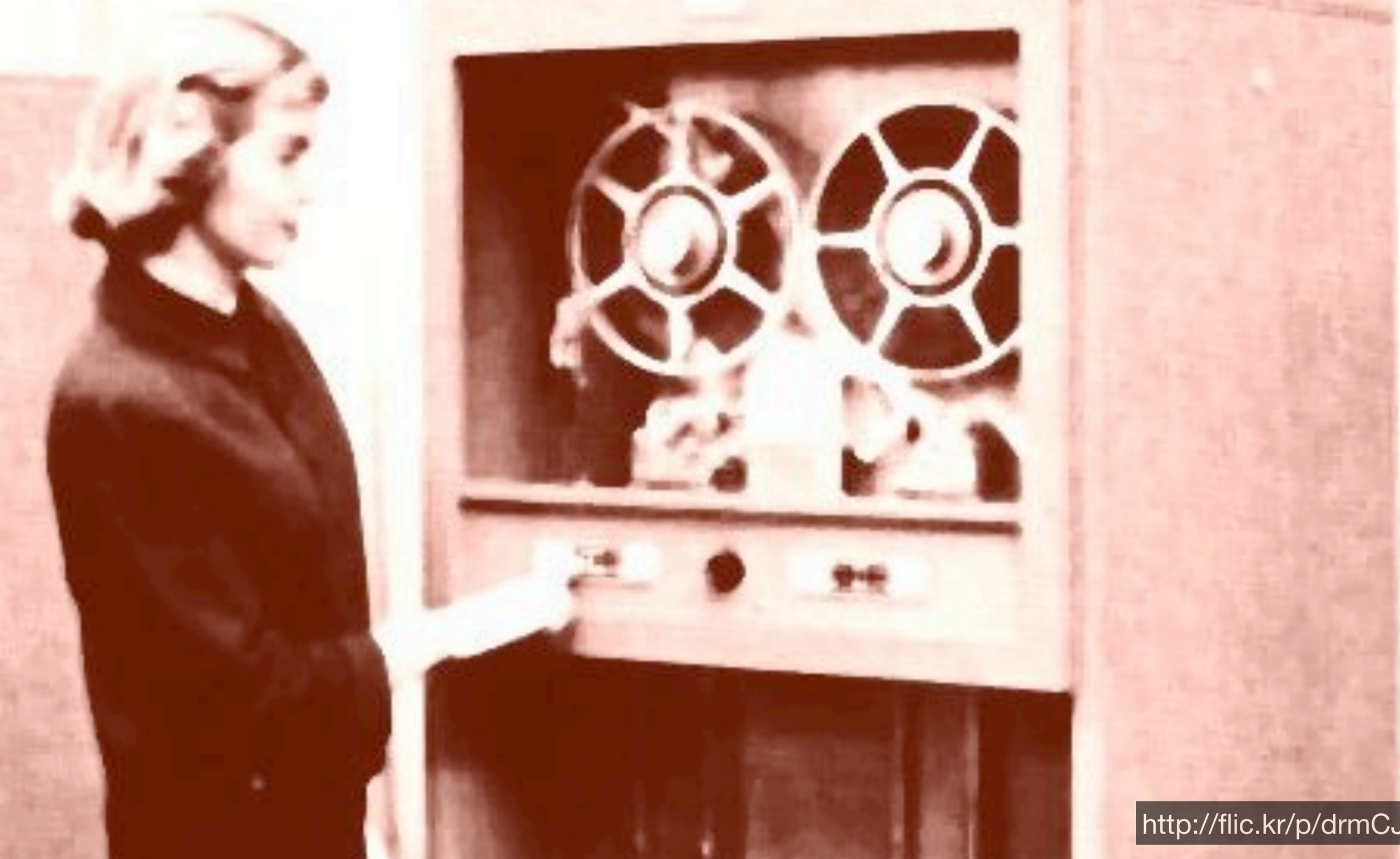
Gotcha

The API isn't protected, you can, if you want to mess things up, do:

```
localStorage.key = 'foo';
```

Now the key method is a string :(

Web SQL Databases



http://flic.kr/p/drmCJ

- SQLite based
- No longer actively maintained
- Good Safari support - i.e. iOS
- Fully featured debuggers available

```
db = openDatabase('Notes', '1.0', 'notes', 5242880);

db.transaction(function(tx) {
  tx.executeSql('CREATE TABLE IF NOT EXISTS ' +
    'notes(id TEXT PRIMARY KEY ASC, title TEXT, ' +
    'rating INTEGER, date DATE, notes TEXT, ' +
    'updated DATE, url TEXT UNIQUE)',
    [], // fields
    success, error);
});
```

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db = openDatabase('Notes', '1.0', 'notes', 5242880);

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    success, error);
});
```

Field values map to '?' values in the SQL

```
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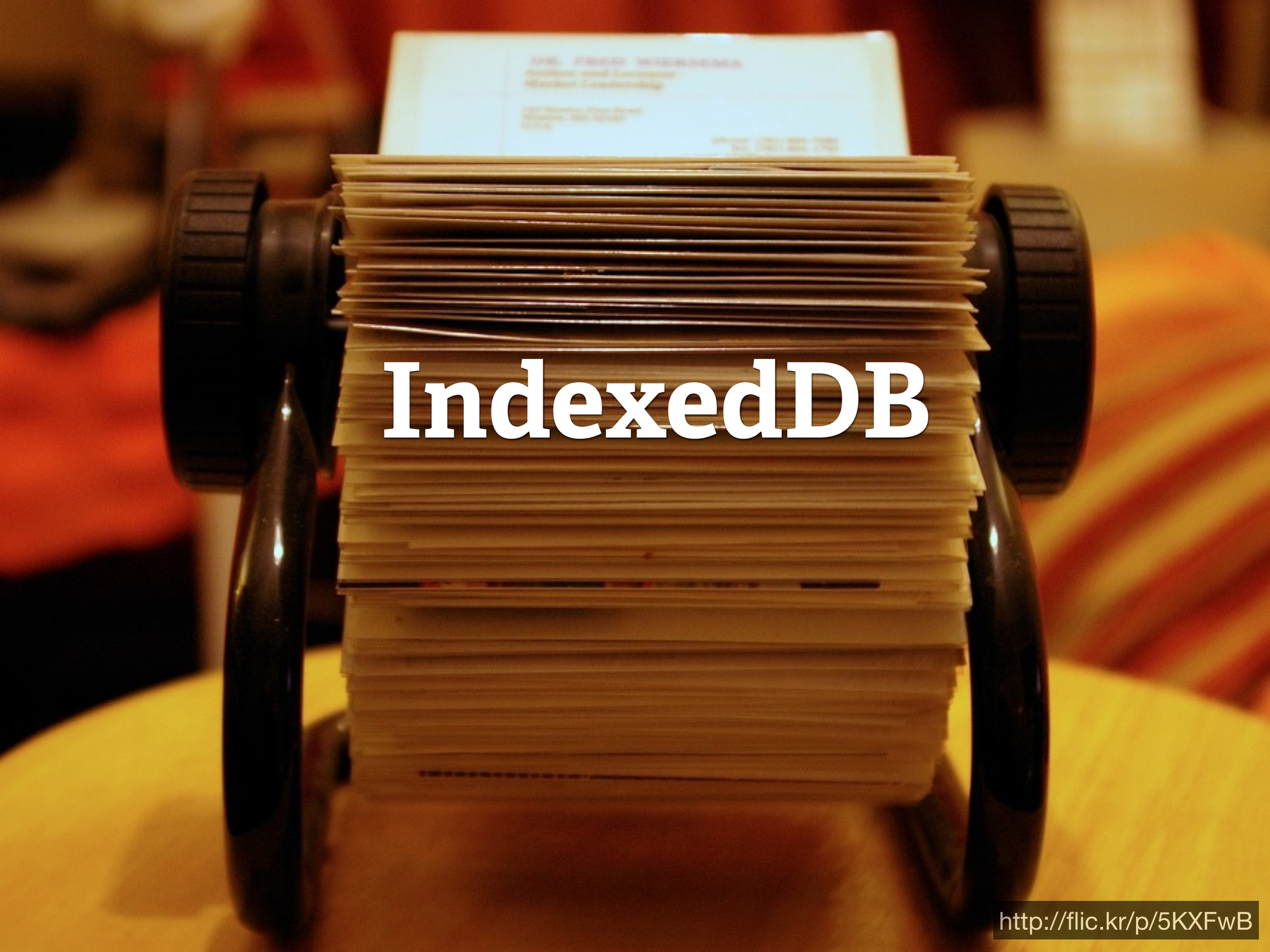
db.transaction(function(tx) {
  tx.executeSql('CREATE TABLE IF NOT EXISTS ' +
    'notes(id TEXT PRIMARY KEY ASC, title TEXT, ' +
    'rating INTEGER, date DATE, notes TEXT, ' +
    'updated DATE, url TEXT UNIQUE)',
    [], // fields
    success, error);
});
```

- Atomic transactions
- Queues every request
- Good Safari support - i.e. iOS
- Fully featured debuggers available

IndexedDB



- Still very new
- Support will be further reaching than Web SQL (but unsure about Safari)
- Very, very difficult to debug atm.

```
var request = indexedDB.open('notes');
request.onerror = fail;
request.onsuccess = function (e) {
  db = e.target.result;
};
```

Very, very object event based.

```
var setVRequest = db.setVersion(v);
setVRequest.onsuccess = function () {
  var store = db.createObjectStore(
                  'notes', {keyPath: 'id'});
  success(); // your callback
};
```

Now create the actual data store

```
var RW = IDBTransaction.READ_WRITE;

var transaction = db.transaction(['notes'], RW, 0),
    store = transaction.objectStore('notes'),
    request = store.put(data);
```

Get the object store and put in it

```
var RW = IDBTransaction.READ_WRITE;

var transaction = db.transaction(['notes'], RW, 0),
    store = transaction.objectStore('notes'),
    request = store.get(id);

request.onsuccess = function (event) {
  callback(event.target.result);
};
```

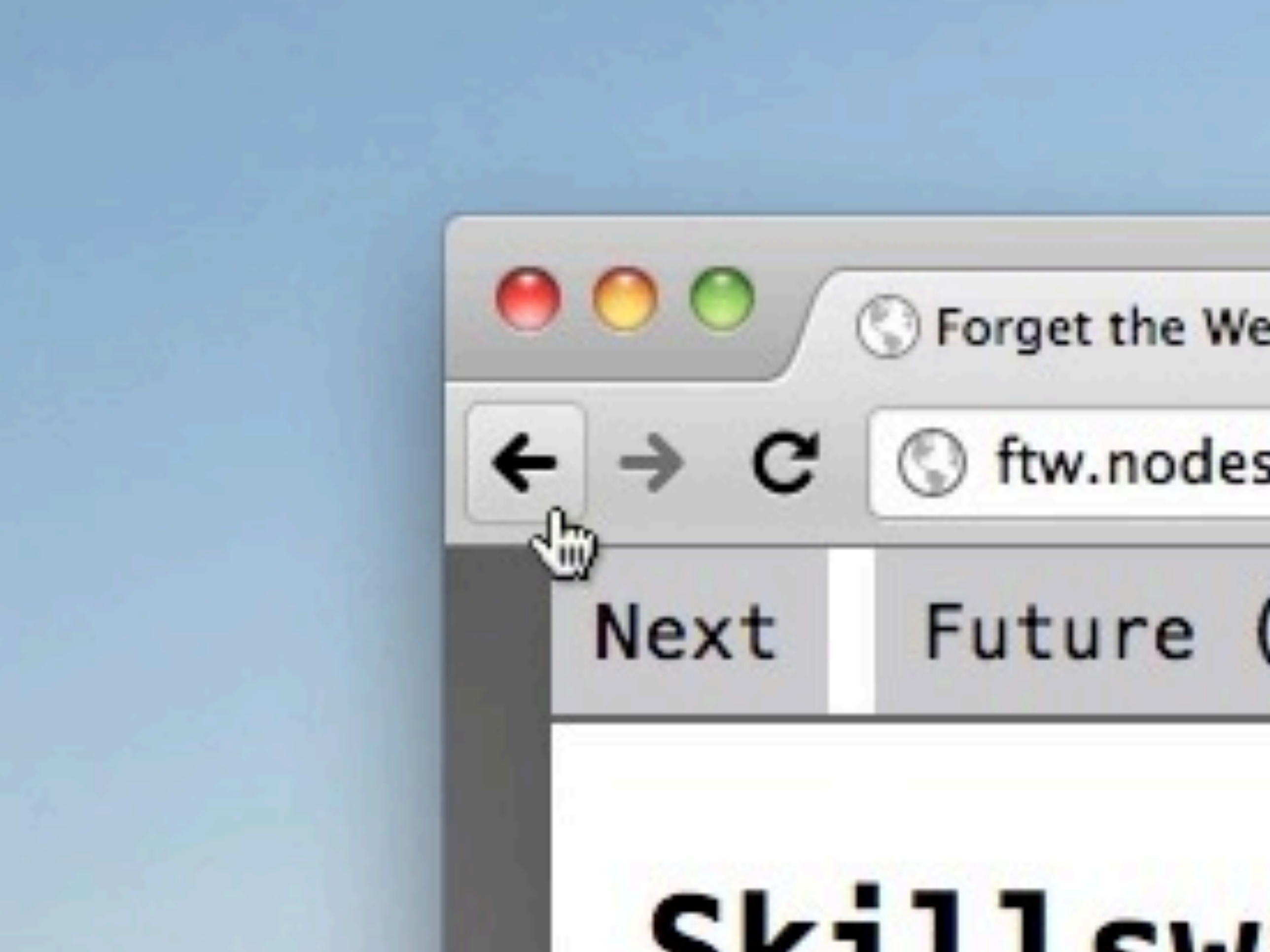
On success, result is in event.target

Lawnchair

http://westcoastlogic.com/lawnchair/

History API

http://flic.kr/p/a42tLM


Forget the We
ftw.nodes
Next
Future

Next

Forget the Web

ftw.nodester.com/conf/2011/skillswap-cudd

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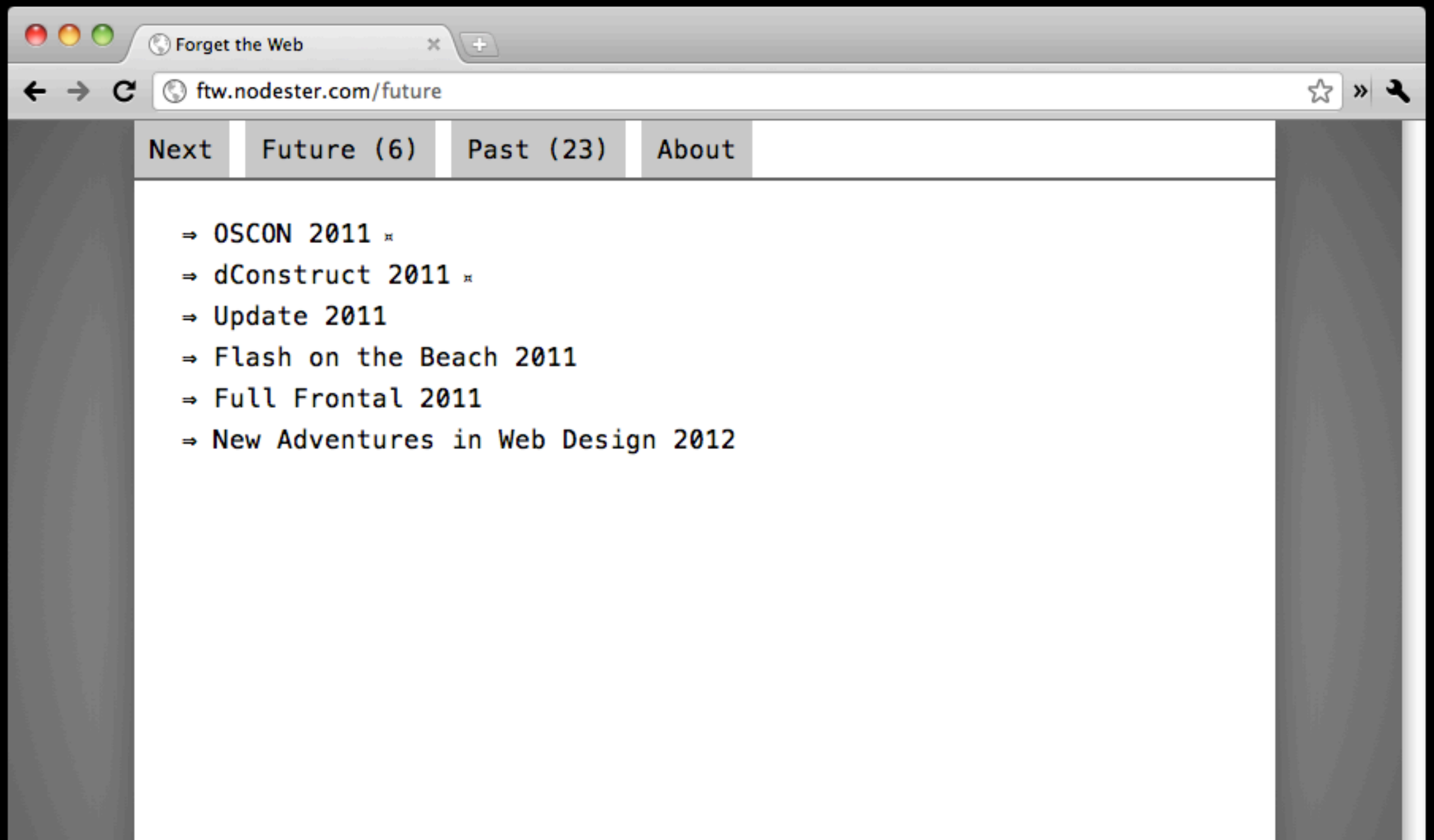
Skillswap cuddles u

20 Jul

```
function router(path) {
  if (path.indexOf('/conf') === 0) {
    showConferenceDetails(path.substr(5));
  } else if (path === '/about') {
    body.id = '';
    body.className = 'about';
  } else if (path === '/') {
    showConferences('next');
  } else {
    showConferences(path.substr(1));
  }
}
```

```
function router(path) {
  if (path.indexOf('/conf') === 0) {
    showConferenceDetails(path.substr(5));
  } else if (path === '/about') {
    body.id = '';
    body.className = 'about';
  } else if (path === '/') {
    showConferences('next');
  } else {
    showConferences(path.substr(1));
  }
}
```

router(location.pathname);



History API

```
history.pushState(state,title,url);

window.onpopstate = fn;
```

```
link.onclick = function (event) {
  event.preventDefault();
  showConferenceDetails(this.path);
  history.pushState('', '', this.path);
};
```

```
link.onclick = function (event) {
  event.preventDefault();
  showConferenceDetails(this.path);
  history.pushState('', '', this.path);
};
```

```
link.onclick = function (event) {
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  event.preventDefault();
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  history.pushState('', '', this.path);
};
```

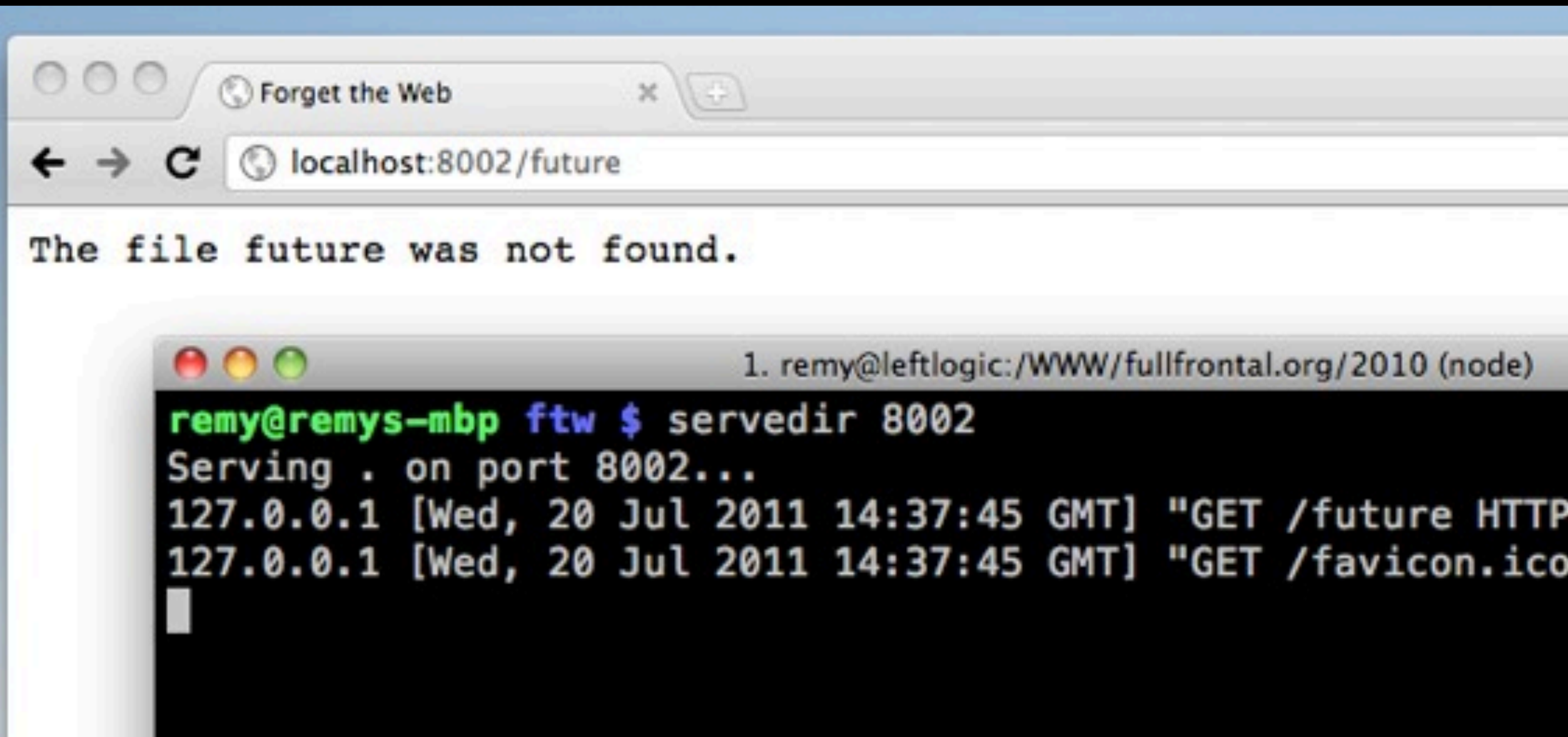
```
link.onclick = function (event) {
  event.preventDefault();
  showConferenceDetails(this.path);
  history.pushState('', '', this.path);
};
```

Now our url matches the page

```
window.onpopstate = function () {
    router(location.pathname);
};
```

URLS FTW!

What about when they request a URL that doesn't exist???



http://flic.kr/p/8zrMy8

DROP
BOX

offline

```
<html manifest="myapp.appcache">
```

```
<html manifest="myapp.appcache">
```

Serve with `text/manifest`

```
<html manifest="myapp.appcache">
```

Serve with `text/manifest`

Set header `cache-control: no-cache`

```
<html manifest="myapp.appcache">
```

Serve with `text/manifest`

Set header `cache-control: no-cache`

starts with `CACHE MANIFEST`

CACHE MANIFEST

/
range.js
datastore.js

Forget the Web

localhost:8002

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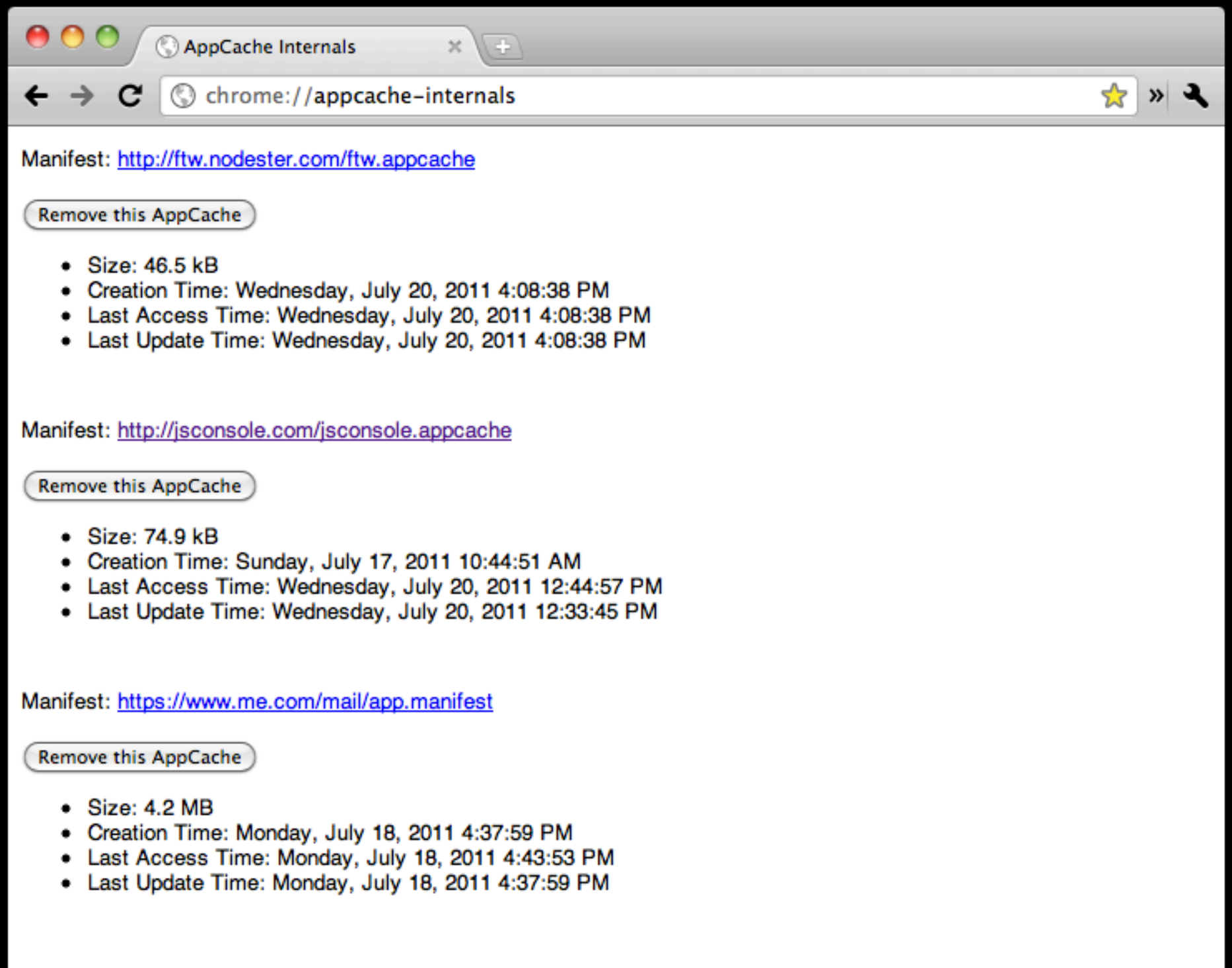
» Skillswap cuddles up to HTML5

Elements | Resources | Network | Scripts | Timeline | Profiles | » | Search Console

All | Errors | Warnings | Logs

>

chrome://appcache-internals



```
CACHE MANIFEST

/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

Served from cache

```
CACHE MANIFEST

/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

Requests for files not found in the cache, are directed to / i.e. index.html (when offline).

```
CACHE MANIFEST

/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

Any requests to urls that don't match / - i.e. on another domain, will be served through the web.

```
CACHE MANIFEST

/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

```
CACHE MANIFEST

/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

Also ensures browser even attempts to load the asset

```
CACHE MANIFEST

/
index.html
range.js
datastore.js

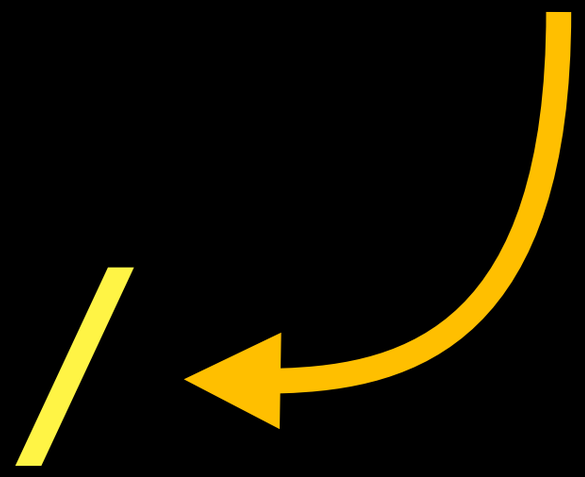
FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

# v4
```

The contents of the manifest must change to trigger an update

/future



And let the router code handle the path

Requests for files not found in the cache, are directed to / i.e. index.html (when offline).

```
CACHE MANIFEST

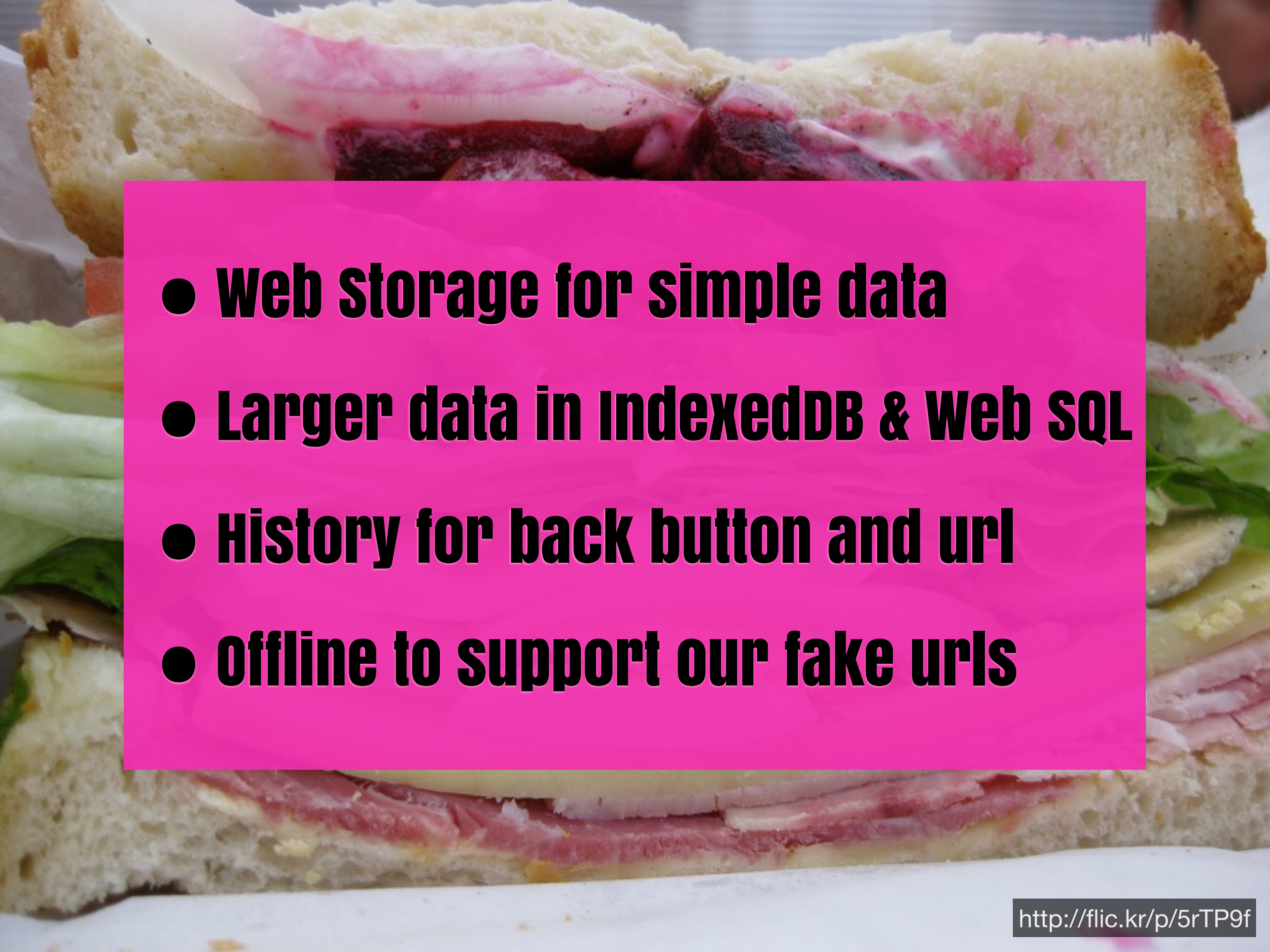
/
index.html
range.js
datastore.js

FALLBACK:
# force everything through
# the index url
/ /

# this won't match
# anything unless it's on
# another domain
NETWORK:
*

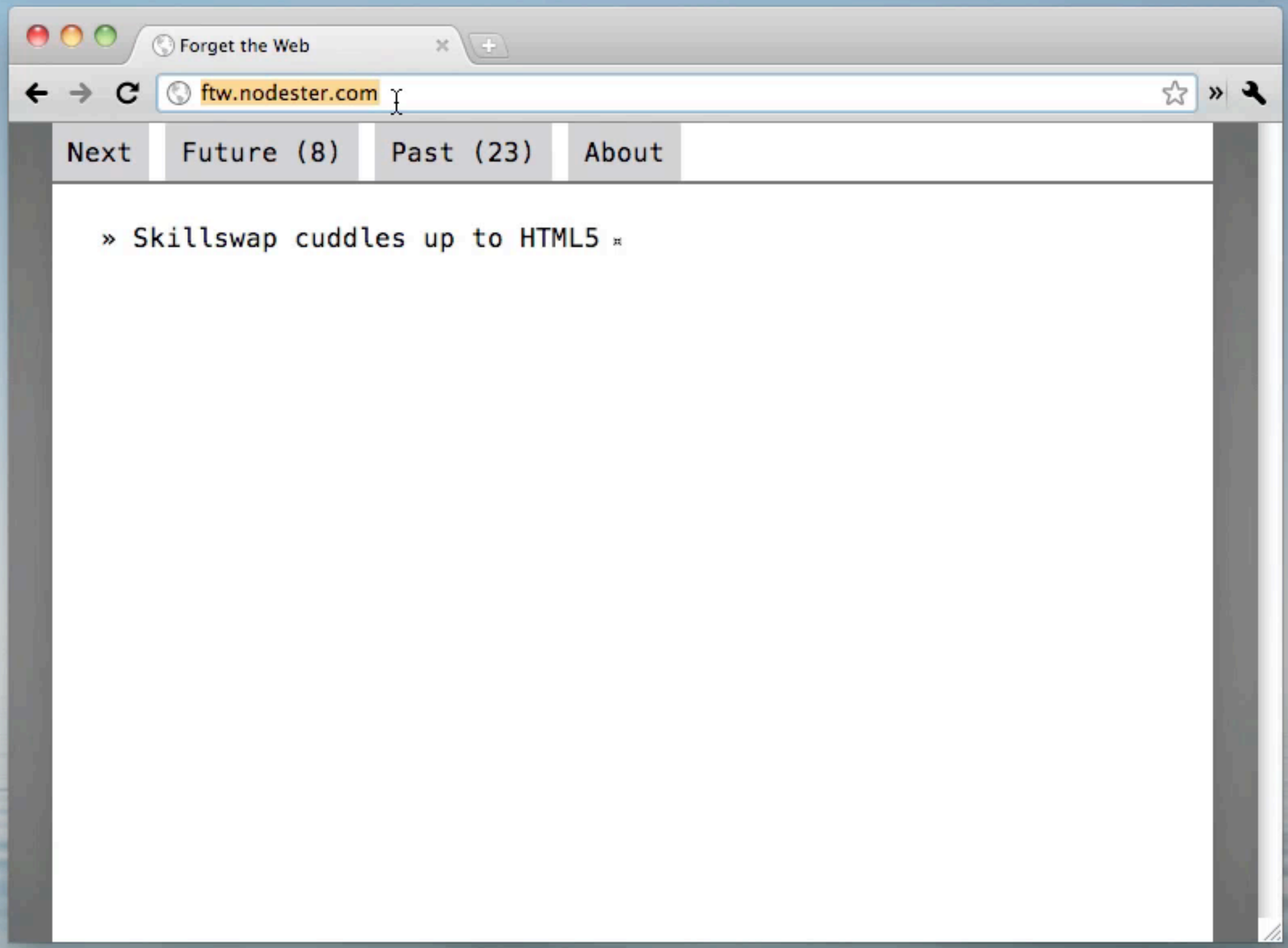
# v4
```

http://flic.kr/p/5rTP9f



- Web Storage for simple data
- Larger data in IndexedDB & Web SQL
- History for back button and url
- Offline to support our fake urls

http://flic.kr/p/5rTP9f



http://ftw.nodester.com

Thank you.
http://flic.kr/p/8JS7km