Braid: Synchronization for HTTP

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The WWW was designed for Static Pages

1993

HTML

HTTP

HTML

HTML
World Wide Web

The World Wide Web (WWW) is a wide area network information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary of the project, timelines, today, November's past, community latest contents, etc.

What's in it? Permissions to the world's largest information superhighway, full access, etc.

Help
Online access you are using

Software Products
A list of W3 project components and where to start (4.9/3.1/3.0/2.1/2.0/1.1/1.0/1.0beta1/Internet, Tools, Mosaic, Literature)

Textual
Details of protocols, tools, programs, interfaces etc

Documentation
Paper documentation on W3's architecture etc.

People
A list of some people involved in the project

History
A summary of the history of the project

How can I help? If you would like to support the web:

Getting started
Getting the tools, hypermedia, etc.

<HEADER>
<TITLE>The World Wide Web project</TITLE>
<NEXTID N="55"> </TITLE>
</HEADER>

<BODY>
<H1>World Wide Web</H1>The WorldWideWeb NAME=0 HREF="WhatIs.html">hypermedia</A> information retrieval initiative aiming to give universal access to a large universe of documents.<A NAME=24 HREF="Summary.html">executive</A>
But now pages change a lot
But now pages change a lot
2011
Pages now change

HTTP Websites

Client

HTTP

Server

MVC Framework

Database

Views

Controllers

Models

Database
Pages now change change

HTTP Websites

Client

HTTP

Server

MVC Framework

Database

Javascript
Pages now change change change

HTTP Websites

Client

HTTP

Server

jQuery

Javascript

XMLHttpRequest

MVC Framework

Database
2017
Pages now change change change change

jQuery
Javascript
XMLHttpRequest
MVC Framework
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HTTP Websites
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This is why web programming sucks
Braid extends HTTP with Synchronization

- CRDTs
- Operational Transform
- Version Control
Braid Synchronizes the Whole Stack

HTTP Websites

- Client
- HTTP
- Server
- Webpage DOM
- HTML Template Views
- Javascript Models
- Views
- Controllers
- Models
- Database

Braid Websites

- Client
- Server
- State
- State
- State
- State
- State
- State
- State
- State
- State
Benefits

• Caches are never stale
• Network only sends diffs
• Reload button obsolete
• Program with 70% less Javascript
• Every site gets an Offline Mode for free
• Every `<textarea>` becomes a collaborative editor
• Servers become optional
• Synchronize with any external website’s internal state as easily as linking to it
• Make a new UI for any website
My name is Michael Toomim
One more thing....

http://  ➔  web: