

# Communication

Author

# Return of AJAX

**Asynchronous Javascript And Xml**

**but really**

**Asynchronous Javascript And Data**

# XMLHttpRequest

```
var r = new XMLHttpRequest();  
r.onload = function () {  
    alert(this.responseText);  
}  
r.open('get', 'test.txt', true);  
r.send();
```

# Content Types

Text

JSON

XML

pretty much anything

# Beware...

**Same Origin Policy**

**Restricts AJAX calls**

**Same hostname**

**Same port**

# CORS

Cross Origin Resource Sharing

Uses Access-Control-... headers

Access-Control-Allow-Origin: \*

or

Access-Control-Allow-Origin: http://...

# Preflight Checks

**GET, HEAD, and Simple POST**

**No checks**

**PUT, DELETE, and Complex POST**

**Browser performs OPTIONS call first**

**Checks Access-Control-\* headers**

**If OK, performs real call**

# IE (<10) is Weird

IE 7 & earlier: no support

IE 8 & 9: XMLHttpRequest

Only GET and POST

No custom headers

Request can only be text/plain

No authentication or cookies



# Alternatives

JavaScript client on data / API server

Dropbox JS Client

HTTP/HTTPS Proxy on server

Zimbra, OpenSocial

JSONP

“JSON with Padding”

# JSONP

```
<script>
var ns =
    document.createElement('script');

ns.src = 'http://...?callback=handler';

document.getElementById('X')
    .appendChild(ns);

function handler(data) {
...
}
</script>
```

# Server Response

```
foo({  
  "message": "Hello, World!"  
});
```