L20N

NEXTGEN L10N FRAMEWORK FOR THE WEB

Created by

Slides   (   )

HOW MANY OF YOU...

are native English speakers?

HOW MANY OF YOU...

use software in a non-English locale?

UI LOCALIZATION

Zibi Braniecki, @zbraniecki

Mozilla L10n Labs, @mozilla_l10n

MOZILLA

MOZILLA

- over 700 million daily users
- Web browsers, email clients, mobile platforms
- 93+ languages
- 100% volunteer based
- maintaining localizations for over 10 years

INTRODUCING THE PROBLEM

HTC

S   .ıll   🔋   13:24

◄   Prz. elem. by zmie uło.,ust.,usun.   ►

Android M   Galeria   Aparat

13 24

Utwory ▾

wszędzie ▾   Albumy ▾   w Stany Zjedno...

✓ wszędzie
w Stany Zjednoczone
dla mnie

1. Can't Hold Us   The 20/20 Experie
wg Macklemore & Ry...   Justin Timberlake

w innym miejscu...   ►

Ostatnio wybrane

wszędzie
dla mnie

2. Thrift Shop – f...
wg Macklemore & Ry...
EXPLICIT

w Dania
w Hiszpania
w Finlandia
w Francja
w Wielka Brytania
w Holandia
w Norwegia
w Szwecja
w Austria
w Szwajcaria
w Belgia
w Niemcy
w Nowa Zelandia
w Autralia
w Andora
w Irlandia
w Luksemburg
w Liechtenstein
w Monako
w Włochy
w Polska
w Portugalia
w Hongkong
w Malezja
w Singapur
w Estonia
w Islandia
w Litwa
w Łotwa
w Meksyk

3. Just Give Me a Reason   3.
wg P!nk   THE HEIST   wg

4 When I Was Your Man wg Bruno Mars   4 The Lumineers
5 Get Lucky – Radio Edit wg Daft Punk   5 18 Months wg
6 Scream & Shout wg will.i.am   EXPLICIT   6 Some Nights
7 Feel This Moment wg Pitbull   7 Unorthodox Ju
8 Mirrors wg Justin Timberlake   8 Save Rock And
9 Ho Hey wg The Lumineers   9 Indicud wg Ki
10 Sweet Nothing wg Calvin Harris   10 Babel (Deluxe
11 Let Her Go wg Passenger   11 Here's To The
12 #thatPOWER wg will.i.am   12 The Truth Abo
13 I Could Be The One [Avicii vs Nicky Ro...   13 Take Care wg
14 Pompeii wg Bastille   14 Megalithic Syn
15 I Need Your Love wg Calvin Harris   15 good kid, m.A.
16 Gentleman wg Psy   16 Native wg One

0:03

tests/demo/

08:46

Nowy alarm

Gotowe

19	45
20	: 46
21	47

Etykieta   Alarm

Powtarzanie Nie

Dźwięk   Classic Buzz

Drzemka   5 minut

HOW DOES INTERFACE LOCALIZATION WORK?

dated approach

English-centric

key-value pairs

plurals if you're lucky

	A	ENGLISH	POLISH	GERMAN	ITALIAN	SPA
	CHECK ALL SHEETS	EN	PL	DE	IT	E
3	label	OK	OK	OK	OK	C
4	label	YES	Tak	Ja	SI	S
5	label	NO	Nie	Nein	NO	N
6	label	Yes, sure!	Tak, pewnie	Ja, bitte!	Si, certo!	Si, ¡Por s
7	label	No, thanks!	Nie, dzięki	Nein, danke!	No grazie!	No, g
8	label	Error	Błąd	Fehler	Errore	Er
9	label	Web	Sieć	Web	Web	W
10	label	Sounds on?	Włączyć dzwięki?	Sound/Töne an?	Suoni attivi?	¿Activar
11	label	Music on?	Włączyć muzykę?	Musik an?	Musica attiva?	¿Activar
12	label	Sound off	Dźwięki: wyłączone	Sound/Töne aus	Suoni disattivati	Desactiv
13	label	Music off	Muzyka: wyłączona	Musik aus	Musica disattivata	Desactiv
14	label	e-mail	E-mail	Email	e-mail	en
15	label	Mute	Wycisz	Stumm schalten	Muto	Siler
16	label	game version	Wersja gry	Spielversion	Versione del gioco	Versión
17						
18						
19						
20	button label	Remind me later	Przypomnij później	Erinnere mich später	Ricordamelo dopo	Recordar
21	button label	Contact us	Napisz do nas	Kontakt	Contattaci	Conta
22	button label	More Games	Więcej gier	Mehr Spiele	Altri giochi	Más j
23	button label	More our app	Więcej aplikacji	Mehr Apps	Altre nostre app	Más
24	button label	About us	O autorach	Über uns	Chi siamo	Sobre
25	button label	Credits	Autorzy	Danksagung	Credits	Cré
26	button label	Cancel	Anuluj	Abbrechen	cancella	Can
27	button label	Back	Wróć	Zurück	indietro	At

4 Basic words | General words | 3 Game words | Device | Marketing | Social | Greetings | 12 Charac

FILE ⟶ OPEN...

JANE LIKED YOUR ALBUM WITH 4 PHOTOS AND SHARED 3 OF THEM TO HER 357 FOLLOWERS IN 4 COUNTRIES AT 9.23 AM YESTERDAY (ON APRIL 24TH, 2013). HAVE A GOOD DAY!

(YOU HAVE 3 MORE UNREAD NOTIFICATIONS)

LOCALIZATION LOGIC IN YOUR SOURCE CODE

(if you're a developer)

OTHER LANGUAGES' LOGIC IN YOUR LANGUAGE'S LOGIC

(if you're a localizer)

AND, PERHAPS MORE IMPORTANTLY

POOR UX

(if you're a user)

SOLUTION

NEW PARADIGM

client-side

isolated

grammar-agnostic

responsive

based on a social contract

LANGUAGE ISOLATION

```
<liked "{{ $user.name }} liked your photo.">
```

```
<liked[$user.gender] {
  feminine: "{{ $user.name }} polubiła twoje zdjęcie.",
  masculine: "{{ $user.name }} polubił twoje zdjęcie.",
}>
```

ENCAPSULATION

```
document.l10n.localize(['hello', 'new'], function(l10n) {

  var node = document.querySelector('[l10n-id=hello]');

  node.textConent = l10n.entities.hello;
  node.classList.remove('hidden');

});
```

SOCIAL CONTRACT

Developers provide important data as *context data*

L20n always returns strings

RESPONSIVE

Retranslate pieces of UI when something changes

L2ON

DATA MODELS

Resource

Locale

Context

Bindings

SYNTAX

```html
<h2 l10n-id="hello"></h2>
```

```
<hello "Hello, World!">
```

```
<hello "Witaj świecie!">
```

```javascript
document.l10n.localize(['hello'], function(l10n) {

  element.textContent = l10n.entities['hello'].value;

});
```

CONTEXT DATA

```html
<script type="application/l10n-data+json">
{
  "user": {
    "name": "John",
    "gender": "male"
  }
}
</script>
```

```
<hello "Hello, {{$user.name}}">
```

```
<missed[ $missedCalls == 1 ? 'one': 'many' ] {
  one: "You have one missed call",
  many: "You have {{$missedCalls}} missed calls"
}>
```

```
<plural($n) { $n == 1 ? 'one': 'many' }>
```

```
<missed[plural($missedCalls)] {
  one: "You have one missed call",
  many: "You have {{$missedCalls}} missed calls"
}>
```
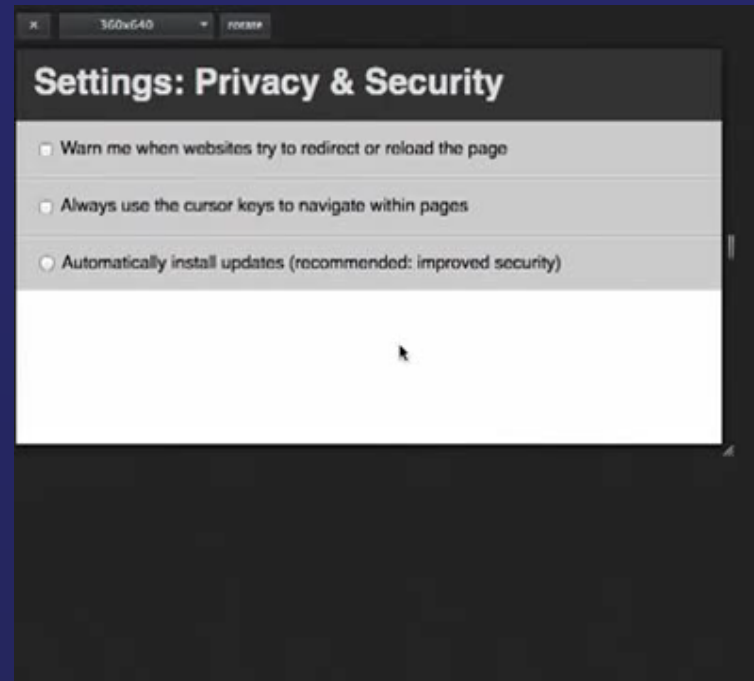
GLOBALS

@os

@hour

@screen.width

```
<hello[ @hour < 12 ? 'morning' : 'evening' ] {
  'morning': 'Good morning',
  'evening': 'Good evening'
}>
```

```
<hello[ @screen.width < 640 ? 'short' : 'long' ] {
  'short': 'Sound',
  'long': 'Sound & Voice Settings'
}>
```

```
document.l10n.localize(['hello'], function(l10n) {

  element.textContent = l10n.entities['hello'].value;

});
```

RESPONSIVE L10N

CLDR / ICU EXTENSIONS?

```
<hello "You have @i18n.formatCurrency($savings)">
```

```
<unreadEmails "You have @i18n.formatNumber($unreadEmails)">
```

```
<todayIs "Today is @i18n.toLocaleDateString($date)">
```

LANGUAGE PACKS

TOOLS

We're commited to invest in l10n environments

1.0 RC

Release in the coming days

Try it at

Fork it at

THE END

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