

*On*  
*Internationalization*  
*&*  
*Localization*



*Pascal Birchler*

*@swisspidy*

*Why Internationalization?*



THROWING  
SHADE



*Why Internationalization?*

# *Internationalization*

*The process of creating a product  
in such a way that it can be  
easily adapted to specific local  
languages and cultures*

# *Localization*

*The process of adapting a product or service to a particular language, culture, and desired local “look-and-feel.”*



# *Localization*

*“Localization is like translation  
but with a cultural twist”*

*i18n*

*l10n*

*Locales*

*Locale ≠  
Language*

*en\_US*

*de\_DE-formal*

*fr\_DE*

*it\_IT*

*es\_MX*

*roh*

*Flag ≠ Language*



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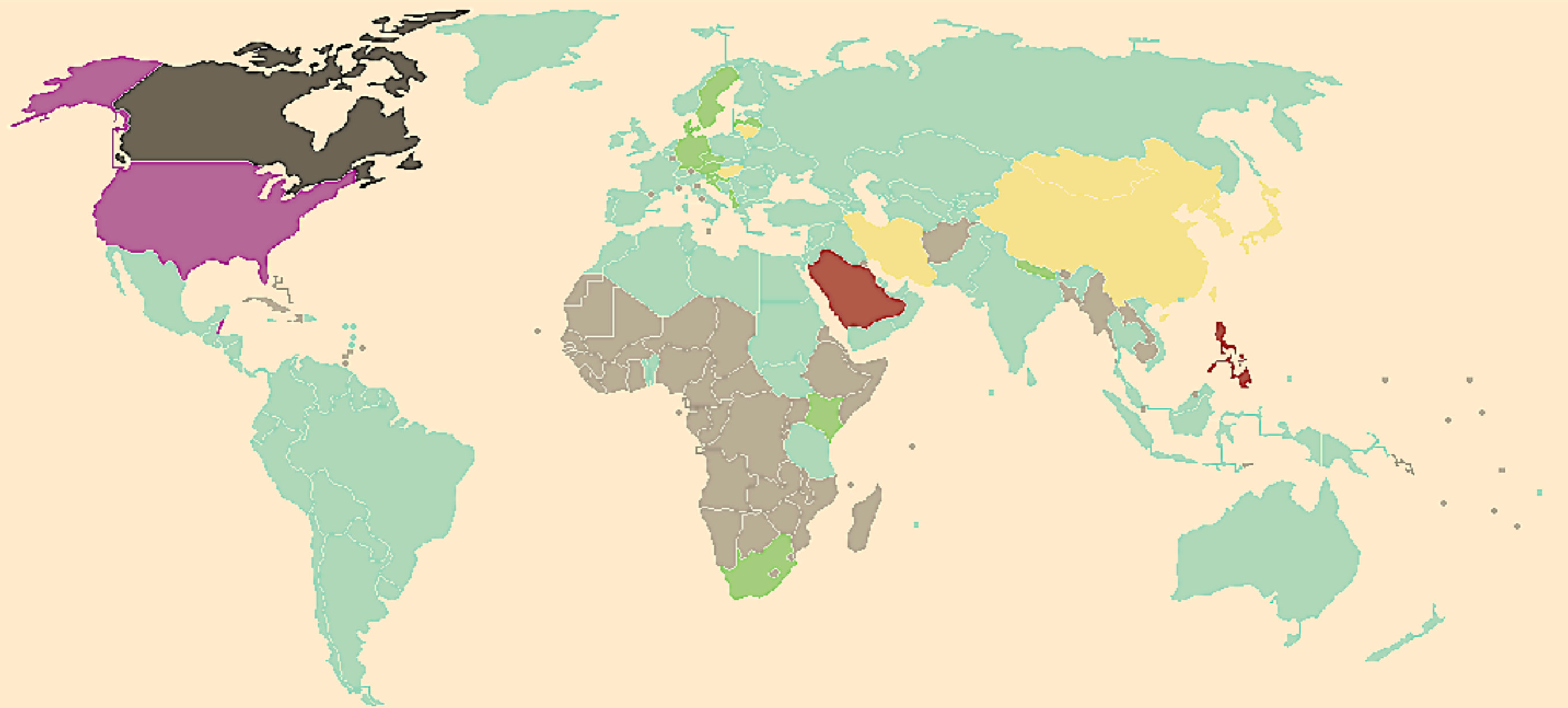
ε

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*flagsarenotlanguages.com*



*Dates*



*11/05/2016*



**Jim Waterson** ✓  
@jimwaterson

 Follow



British press corp is locked outside the White House because our birthdates were submitted in UK format and secret service don't get it. 🇬🇧

RETWEETS  
**21,080**

LIKES  
**31,280**



5:27 PM - 27 Jan 2017

 1.6K

 21K

 31K



**Ned Donovan**  @Ned\_Donovan · 6m 

White House press officer just told me off on the phone for laughing when they told me about not knowing British date formats were different

 2

 12

 14



**Ned Donovan**  

@Ned\_Donovan

"Why is that funny? One person put their birthday as 01/08/[year], why would we be expected to think that means August 1st? Why?"

27/01/2017, 11:39

*Numbers*

*123 456.99*

*123,456.99*

*123'456.99*

*123.456,99*

# *Pricing*



*Right to Left*      *Icons*

*Puns*      *Currencies*

*Support*

*Legal*      *Symbols*

*Units*      *Numbers*

*Formal/Informal*

*Jokes*

# *Dealing with Locales*







# *Locale Detection*

Accept-Language: da, en-gb;q=0.8, en;q=0.7

## User interface text language detection

Order of language detection methods for user interface text. If a translation of user interface text is available in the detected language, it will be displayed.

[Show row weights](#)

DETECTION METHOD	DESCRIPTION	ENABLED	OPERATIONS
 <b>Account administration pages</b>	Account administration pages language setting.	<input type="checkbox"/>	
 <b>URL</b>	Language from the URL (Path prefix or domain).	<input checked="" type="checkbox"/>	<button>Configure</button>
 <b>Session</b>	Language from a request/session parameter.	<input type="checkbox"/>	<button>Configure</button>
 <b>User</b>	Follow the user's language preference.	<input type="checkbox"/>	
 <b>Browser</b>	Language from the browser's language settings.	<input type="checkbox"/>	<button>Configure</button>
 <b>Selected language</b>	Language based on a selected language.	<input checked="" type="checkbox"/>	<button>Configure</button>

Save settings

*Internationalization*  
*in*  
*User Interfaces*

*Dates*

# *Symbols*





# *Personal Names*

*David Lloyd George*



*Lang*  
*von der Leyen*  
*Little*  
*Lovett*

*Implications for  
field design*

# YOUR PROFILE

Full name

## YOUR PROFILE

Family name

Other/given names

## YOUR PROFILE

Full name

What should we call you? (for example, when we send you mail?)

**20,056**

views

**10**

faves

**6**

comments

**20,056**

visualizzaz.

**10**

preferiti

**6**

commenti

**20,056**

visualizações

**10**

favoritos

**6**

comentários

**20,053**

次檢視

**10**

人加入最  
愛

**6**

則留言

**20,062**

Aufrufe

**10**

Favoriten

**6**

Kommentare





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MARK  
PARISI

1-26 MarkParisi@aol.com

GERMAN USING TWITTER

*Fonts*

## Beautiful and free fonts for all languages

When text is rendered by a computer, sometimes characters are displayed as “tofu”. They are little boxes to indicate your device doesn’t have a font to display the text.

[DOWNLOAD ALL FONTS](#)

474.2 MB

Google has been developing a font family called Noto, which aims to support all languages with a harmonious look and feel. Noto is Google’s answer to tofu. The name noto is to convey the idea that Google’s goal is to see “**no** more **tofu**”. Noto has multiple styles and weights, and is freely available to all. The comprehensive set of fonts and tools used in our development is available in our [GitHub repositories](#).

😊 All Noto fonts are now licensed under OFL. [Read more updates](#)



Search for languages, regions, and font names

Noto Sans

[DOWNLOAD](#)

*Left-to-Right*

*Right-to-Left*

Auf Facebook bleibst du mit Menschen in Verbindung und teilst Fotos, Videos und vieles mehr mit ihnen.



## Registrieren

Facebook ist und bleibt kostenlos.

### Geburtstag

[Warum muss ich meinen Geburtstag angeben?](#)

Weiblich  Männlich

Indem du auf „Konto erstellen“ klickst, erklärst du dich mit unseren [Nutzungsbedingungen](#) einverstanden und bestätigst, dass du unsere [Datenrichtlinie](#) einschließlich unserer [Cookie-Richtlinie](#) gelesen hast. Eventuell erhältst du SMS-Benachrichtigungen von Facebook, die du jederzeit abbestellen kannst.

**Konto erstellen**

[Erstelle eine Seite](#) für einen Star, eine Band oder ein Unternehmen.

# إنشاء حساب في فيسبوك

مجاني، وسيبقى مجاني دائماً.

يمنحك فيسبوك إمكانية التواصل مع الأشخاص ومشاركة ما تريد معهم.


 اسم العائلة

 الاسم الأول

 رقم الهاتف المحمول أو البريد الإلكتروني

 أعد إدخال رقم الهاتف المحمول أو البريد الإلكتروني

 كلمة السر الجديدة

تاريخ الميلاد

ما ضرورة إدخال تاريخ ميلادي؟



السنة



الشهر



اليوم

ذكر

أنثى

بالنقر على إنشاء حساب، فإنك توافق على الشروط التي تتبعها وأنك قرأت سياسة البيانات بما في ذلك استخدام ملفات تعريف الارتباط. يمكنك تلقي إشعارات رسائل SMS من فيسبوك ويمكنك إلغاء الاشتراك في أي وقت.

**إنشاء حساب**

إنشاء صفحة لفرق موسيقية أو مشاهير أو أنشطة تجارية.

```
lang="en">
```

```
lesheet" href="//
```



## RTLCS

Framework for converting Left-To-Right (LTR) Cascading Style Sheets (CSS) to Right-To-Left (RTL)

```
1 <!DOCTYPE h
2 <html dir="
3 <head>
4 <link rel="
5 </head>
6 <body>
7 <section>
```

**Automagically** works!



### CSS Level 3

It's more than swapping left with right, RTLCS provides **Full Support** for CSS3 properties.

```
.selector {
  border-bottom-right- |
}
```

```
/*rtl:prepend:{value} |*/
```

### Processing Directives

Powerful set of **Directives** to manage the conversion process right from within your CSS.

*Internationalization*  
*in*  
*Your Code*



**INTERNATIONALIZE**



**ALL THE THINGS**

*String  
Extraction*

```
function translateIt( $str ) {  
    // Do something.  
}
```

```
_( 'Foo' ); // ✓
```

```
translateIt( 'Bar' ); // ✗
```

```
_( 'Baz' ); // ✓
```

```
$foo = 'Hello World';  
_( $foo ); // X
```

*String  
Concatenation*

```
echo $num . ' ' . _ ( 'items' )
```

# *Plural Forms*

```
printf( _( '%d items' ), $num )
```



```
if ( $num == 1 )  
    printf( _( '%d item' ), $num )  
else  
    printf( _( '%d items' ), $num )
```

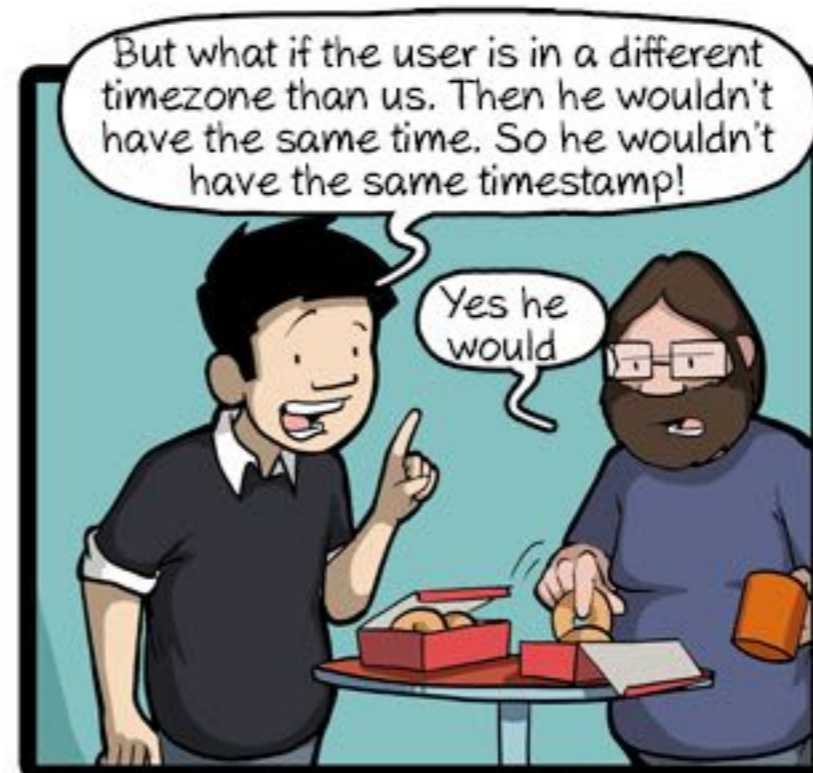
```
printf(  
    _n(  
        '%d item',  
        '%d items',  
        $num  
    ),  
    $num  
)
```

```
printf(_n('%d item', '%d items', 1), 1)  
printf(_n('%d item', '%d items', 2), 2)  
printf(_n('%d item', '%d items', 5), 5)
```

*Context*

*t( 'Post' , [ 'context' => 'verb' ] )*  
*t( 'Post' , [ 'context' => 'noun' ] )*

# *Dates & Units*



# *Resources*



*Documentation*

*Localization  
Management*

*w3.org/internationalization*

*cldr.unicode.org*

*To Sum Things Up*

- 1. Don't make assumptions*
- 2. Understand cultural values*
- 3. Start from the beginning*
- 4. Don't reinvent the wheel*

*Thank You!*

*Questions?*



