I18N...WHAT?

INTERNATIONALIZATION: WHY AND HOW

David Wood

https://davidwood.ninja/

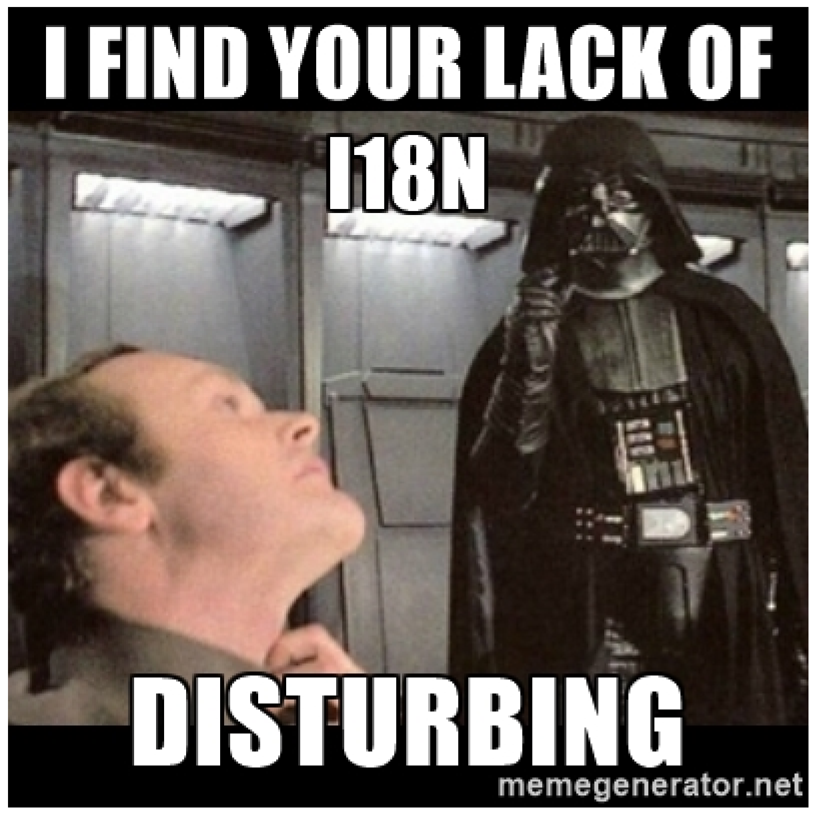
WHAT IS IT?

Internationalization is the process of writing code so it can be translated into specific local languages and cultures.

WHY SHOULD I CARE?

According to WordPress.org, about 43.8% of WordPress installations are in a language other than English.

Source https://wordpress.org/about/stats/



HOW DO I INTERNATIONALIZE MY CODE?

INTERNATIONALIZATION SETUP

Plugin/theme file header

```
/*
Text Domain: your-text-domain
Domain Path: /languages
*/
```

For plugins or themes in the WordPress.org repositories, the text domain should be the plugin or theme slug!

LOAD YOUR TRANSLATIONS

Plugins

```
<?php
// Loads translations from your plugins `languages` directory
load_plugin_textdomain( 'text-domain', false,
    dirname( plugin_basename( __FILE__ ) ) . '/languages' );
```

Themes

```
<?php
your_custom_function_name() {
    // Load from the themes `languages` directory
    load_theme_textdomain( 'text-domain',
        get_template_directory() . '/languages' );
}
add_action( 'after_setup_theme', 'your_custom_function_name' );
```

THE FUNCTIONS

BASIC STRING TRANSLATION

```php
<?php
// Returns the translated string, does not output anything
__( 'How many books do you own?', 'your-text-domain' );

// Echos the translated string
_e( 'How many books do you own?', 'your-text-domain' );
echo __( 'How many books do you own?', 'your-text-domain' );
```

Avoid HTML in your strings if at all possible! Translators don't need to have the ability to change your plugin or theme markup.

HELP THE TRANSLATORS

Beware words with multiple meanings and little context!

```php
<?php
// This is ambiguous
__( 'Post', 'your-text-domain' );

// Second argument is visible when translating, provides context
_x( 'Post', 'noun', 'your-text-domain' );
_x( 'Post', 'verb', 'your-text-domain' );

// Echos, but allows context for translator
_ex( 'Post', 'verb', 'your-text-domain' );
```

The word `post` could be translated as `article` or `submit`, depending on context.

DON'T FORGET TO ESCAPE!

Untrusted content should always be escaped

```php
<?php
esc_html__( 'Awesome text', 'your-text-domain' );
esc_html_e( 'Awesome text', 'your-text-domain' );
esc_html_x( 'Awesome text', 'context', 'your-text-domain' );

esc_attr__( 'Awesome text', 'your-text-domain' );
esc_attr_e( 'Awesome text', 'your-text-domain' );
esc_attr_x( 'Awesome text', 'context', 'your-text-domain' );
```

NOTE: For strings that are not being translated use:
`esc_html()` or `esc_attr()` instead. Also note `esc_url()`

Example

```php
<a href="#" title="<?php esc_attr_e( 'Click me!', 'my-slug' ); ?>">
    <?php esc_html_e( 'Click me!', 'my-slug' ); ?>
</a>
```

DON'T USE VARIABLES!

When WordPress builds language files,
it doesn't execute your code!

```php
<?php
// All these examples are incorrect
__( $string, 'your-text-domain' );
__( 'Awesome text', $text_domain );
__( 'Awesome text', MY_DOMAIN_CONSTANT );
__( $string, $text_domain ); // Just...no.
__( "Hello {$name}, how are you?", 'your-text-domain' );

echo __( 'Hello ', 'your-text-domain' ) . $name
   . __( ', how are you?', 'your-text-domain' );
```

instead we have...

sprintf() TO THE RESCUE!

Remember that English is a wordy language and other languages typically use different sentence structure.

```php
<?php
$text = sprintf(
   // This is a great place for additional context, consider _x()
   __( 'Hello %1$s, you will be %3$d on %2$s', 'your-text-domain' ),
   $name, // George
   // June 2nd, 2017
   date_i18n( get_option( 'date_format' ), $timestamp )
   $age + 1, // 20 + 1 = 21
);
// Outputs "Hello George, you will be 21 on June 2nd, 2017"
// You could also just use printf() to echo immediately
echo $text;
```

If you only have one variable, you can use `%s` or `%d` for strings or numbers respectively.

DEALING WITH NUMBERS

You can have zero books, one book, or two books.
You cannot have one books.

```php
<?php
$text = sprintf(
    _n(
        'I have %s book',
        'I have %s books',
        number_format_i18n( $number, $decimals = 0 ),
        'your-text-domain'
    ),
    $number
);
```

LOCALIZATION

The part where it actually gets translated

HOW DO I LOCALIZE?

There are 2 ways:

1. Use translate.wordpress.org
   (only for the WordPress.org theme/plugin repo & core)
2. The hard way...

THE EASY WAY

1. Have your plugin or theme approved and in the WordPress.org repository
2. Ensure your plugin/theme has the "Text Domain" line in the file header. The value should be the plugin/theme slug.
3. Make sure you are actually telling WordPress to load the language files for your text domain:

```php
<?php
// Plugin
load_plugin_textdomain( 'your-plugin-slug' );
// Theme
your_custom_function_name() {
    load_theme_textdomain( 'your-theme-slug' );
}
add_action( 'after_setup_theme', 'your_custom_function_name' );
```

SIT BACK AND LET OTHER PEOPLE TRANSLATE YOUR CODE

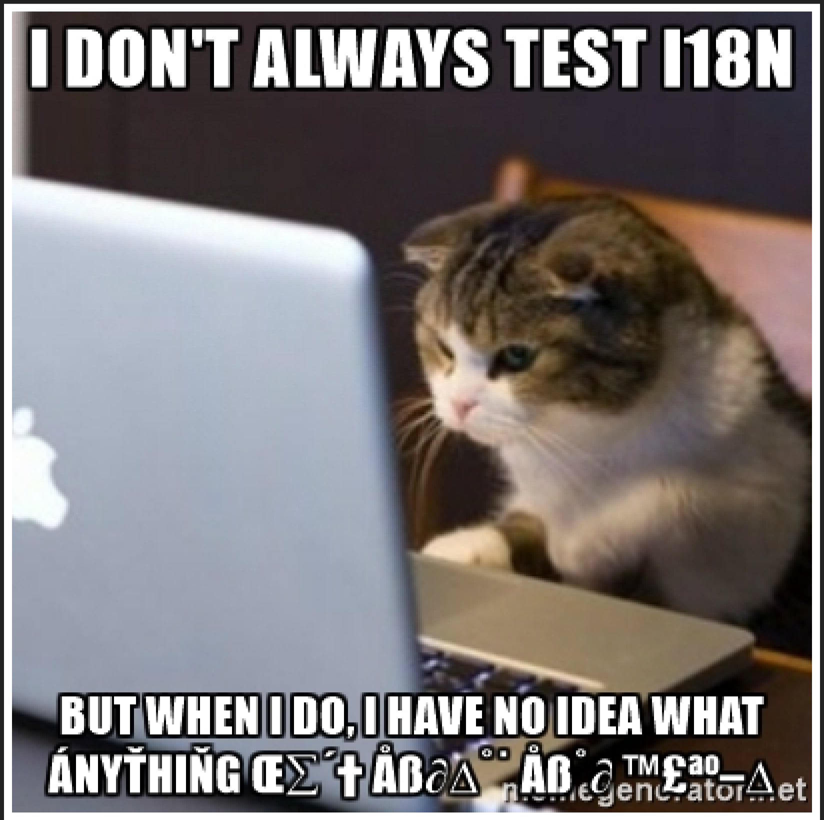
No more generation of files or maintaining translations yourself. It is all handled for you on translate.wordpress.org

BONUS: Your plugin or theme readme file can be translated as well!

THE HARD WAY

1. Generate a '.pot' file using the i18n tools
2. Have a translator translate the '.pot' file into a '.po' file
3. Ensure the '.po' file is named using the correct locale
4. Use a command line tool like 'msgfmt` to generate '.mo' files from '.po' files
5. Put the '.mo' files in your plugin or theme's language folder

TEST YOUR I18N!


I DON'T ALWAYS TEST I18N
BUT WHEN I DO, I HAVE NO IDEA WHAT
ÁNYŤHIŇG Œ∑´† Åß∂∆˚¨ Åß˚∂™£ªº–∆
memegenerator.net

WORDPRESS TRANSLATION DAY

November 12th, 2016 is WordPress translation day!

See https://wptranslationday.org for more details.

RESOURCES & REFERENCES

https://translate.wordpress.org

https://developer.wordpress.org/plugins/internationalization/

https://developer.wordpress.org/themes/functionality/internationalization/

https://codex.wordpress.org/I18n_for_WordPress_Developers#Using_the_i18n_tools *

http://ottopress.com/2013/language-packs-101-prepwork/

http://ottopress.com/2012/internationalization-youre-probably-doing-it-wrong/ *

http://ottopress.com/2012/more-internationalization-fun/ *

https://markjaquith.wordpress.com/2011/10/06/translating-wordpress-plugins-and-themes-dont-get-clever/

* Page may contain some outdated information