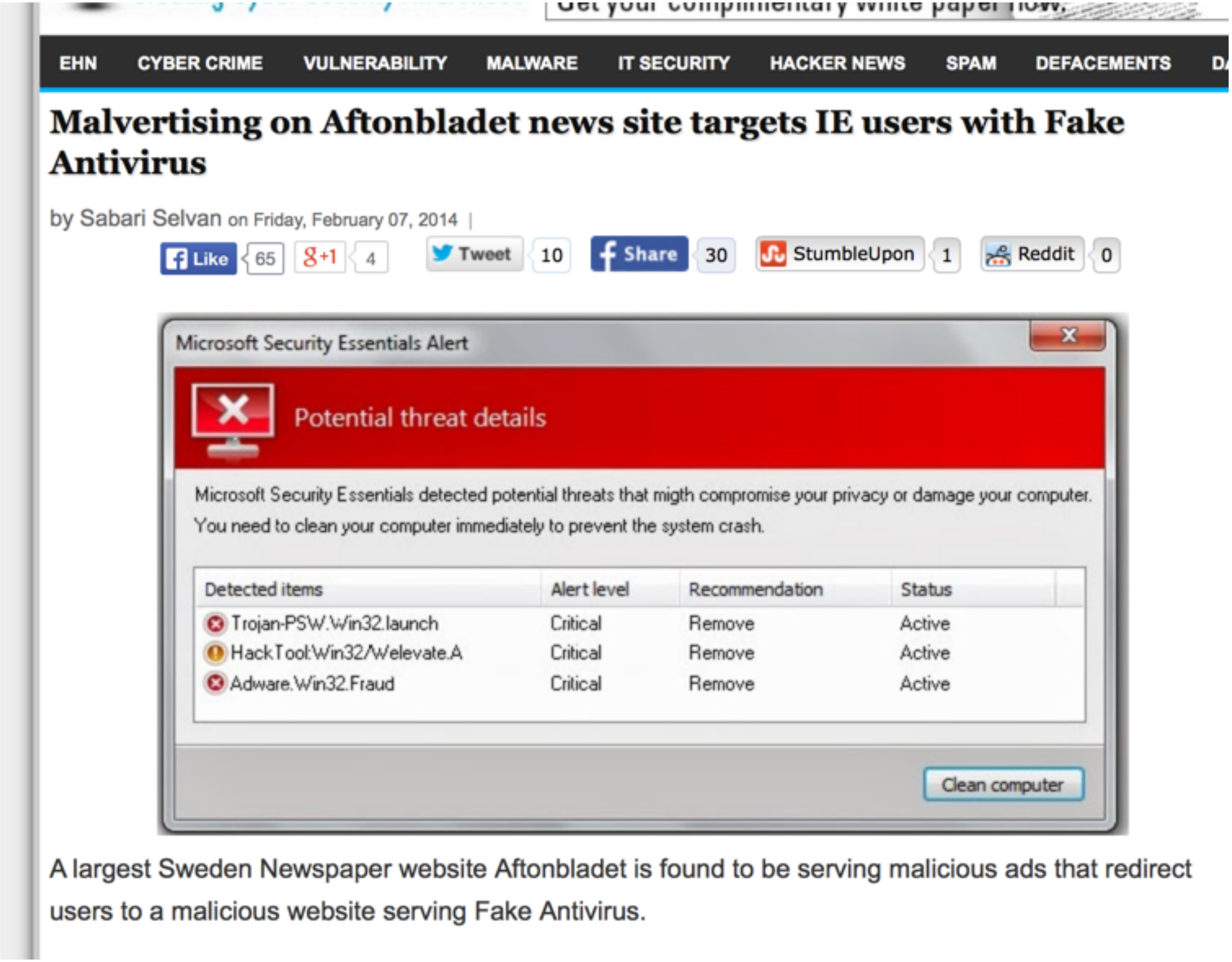
Theme and plugin development

mansoormunib

“It is not what we get, but who we become, what we contribute, that gives meaning to our lives”(Tony Robbins)



Malvertising on Aftonbladet news site targets IE users with Fake Antivirus

by Sabari Selvan on Friday, February 07, 2014 |

Microsoft Security Essentials Alert

Potential threat details

Microsoft Security Essentials detected potential threats that migth compromise your privacy or damage your computer. You need to clean your computer immediately to prevent the system crash.

Detected items	Alert level	Recommendation	Status
Trojan-PSW.Win32.launch	Critical	Remove	Active
HackTool:Win32/Welevate.A	Critical	Remove	Active
Adware.Win32.Fraud	Critical	Remove	Active

A largest Sweden Newspaper website Aftonbladet is found to be serving malicious ads that redirect users to a malicious website serving Fake Antivirus.

About me

- MS in programming Languages from LIU
- Working in DW interactive as WP-programmer
- Always keen to learn and share knowledge

My setup

- Windows

- WAMP

- localhost -> Bitbucket (GIT) -> DeployHQ (Take code from repository andDeploy on Dev) -> Development server

- Firefox Host admin (addon)

- Less CSS

Theme development

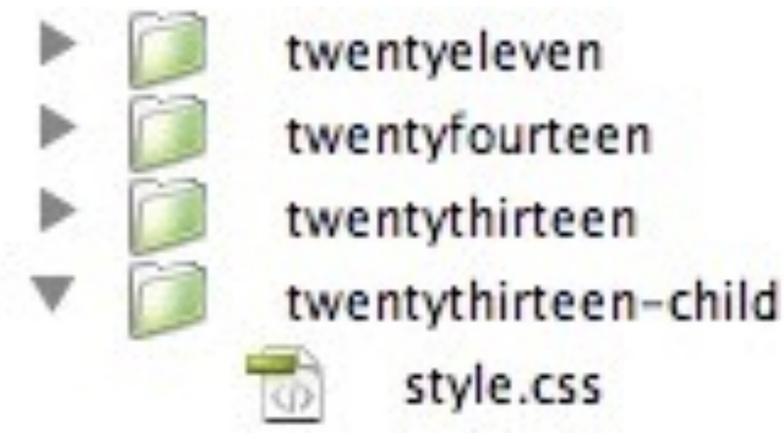
Best practices for theme developments

- don’t invent the wheel again (use starter or child theme)
- enqueue script and style
- theme customizer
- add editor style (so actually what you see is what you get)
- don’t use query_post instead use WP_Query or get_post
- get_template_part
- always use escape function

Starter or Child theme

- Starter theme is wireframe with all of the basic functionality needed to build theme

- Child theme is the safest way to override the existing theme. for example if we want to override twentythirteen CSS



twentyeleven
twentyfourteen
twentythirteen
twentythirteen-child
style.css

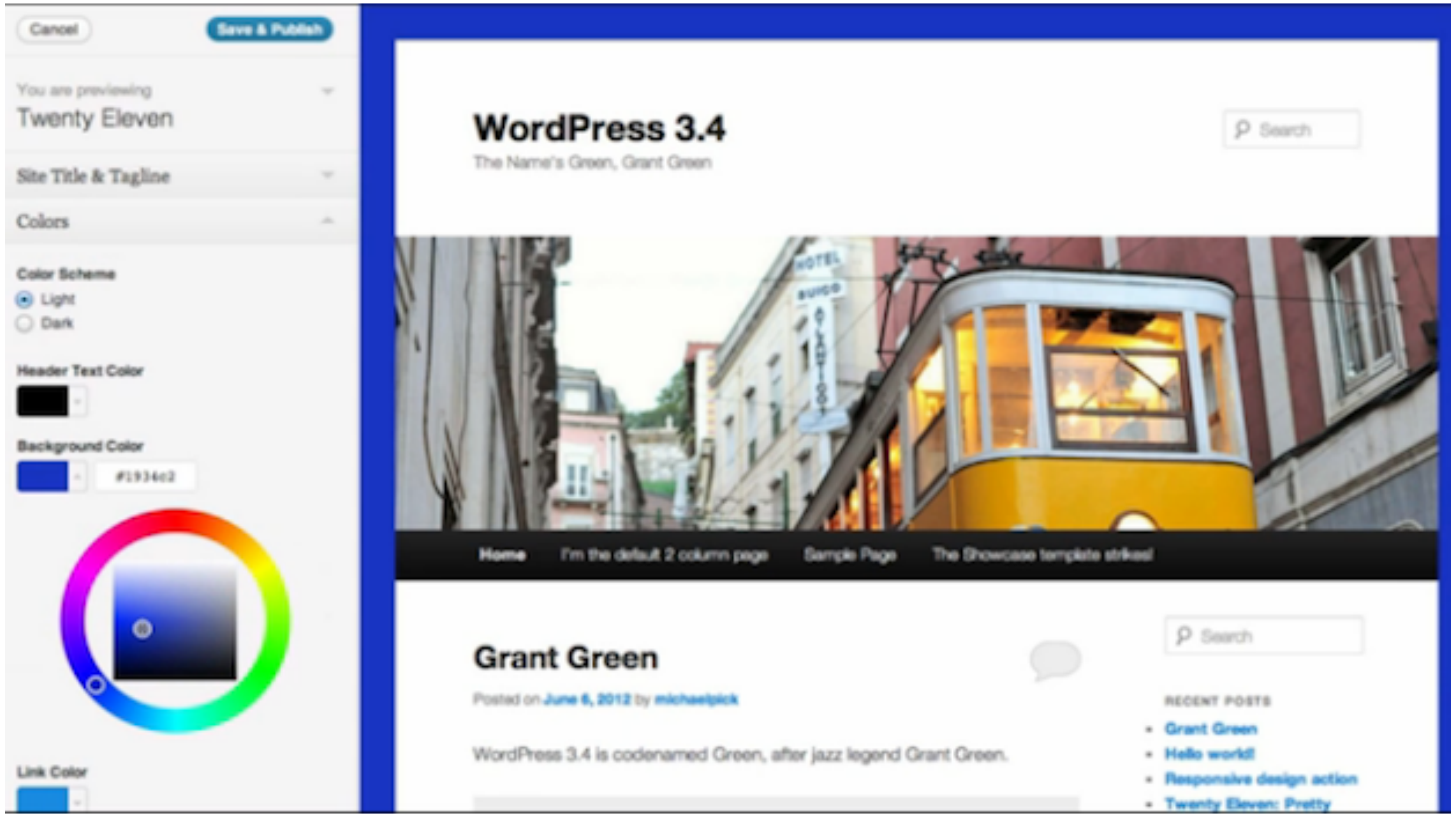
enqueue script and style

```
function load_ss_script()  {
	wp_register_script( 'ss-script', PLUGIN_URL ."/Script.js", array('jquery'), "1.0", 
true );
	wp_register_style( 'ss-style',PLUGIN_URL ."/Style.css", array(), '1.0', 'all' );
	wp_enqueue_script( 'ss-script' );
	wp_enqueue_style( 'ss-style' );
	wp_localize_script( 'ss-script', 'ssAjax', array( 'ajaxurl' => admin_url( 'admin-
ajax.php' )));
}
add_action( 'wp_enqueue_scripts', 'load_ss_script' );
```

1. We can control the loading sequence of script. For example if your script need jquery to be loaded first you can define in the third argument (as you see in first line)
2. In the child theme if you don’t need script you can easily dequeue them.
3. Localize script make any data available to your script. For example we are passing admin_url of ajax file through ajaxurl.

theme customizer

Wordpress 3.4 and greater version comes up with theme customizer.



Color Scheme

● Light
○ Dark

Header Text Color

Background Color #1934c2

Link Color
WordPress 3.4
The Name's Green, Grant Green
Search
Home
I'm the default 2 column page
Sample Page
The Showcase template strikes!
Grant Green

Posted on June 6, 2012 by michaelpick

WordPress 3.4 is codenamed Green, after jazz legend Grant Green.

You can change header, title, text color, link color and preview live in browser and also extend customization with customizer API.

add editor style

WYSIWYG means what you see is what you get

Really?

Unfortunately <10 % Wordpress themes uses editor style.

Use add_editor_style($stylesheet);

You need to copy css form style sheet Or if you want your own styles list use this Plugin “TinyMCE Advanced Professional Formats and Styles”

query_post

If you don't need or don't know the proper use avoid query_post. because it can break the main loop, pagination or some other data.

Try to use WP_Query or get_post, to get data from custom post type.

And pre_get_post() if you want to alter main loop, for example exclude any category.

get_template_part

Makes it easy for a theme to reuse sections of code and an easy way for child themes to replace sections of their parent theme.

```
<?php get_template_part( 'loop', 'index' ); ?>
```

If you write the above line it will try to search loop-index.php file and if this does not exist it will fall back and try to find to option 2, 3 or 4

1. wp-content/themes/twentytenchild/loop-index.php
2. wp-content/themes/twentyten/loop-index.php
3. wp-content/themes/twentytenchild/loop.php
4. wp-content/themes/twentyten/loop.php

escape function

```
esc_html();

//$title = “ ‘onmouseover’= malicious_code()”;

<a href=“#” title=<?php echo $title; ?>>

</a>

<?php echo esc_html($title); ?>
```

esc_url, esc_js …..

Theme plugin

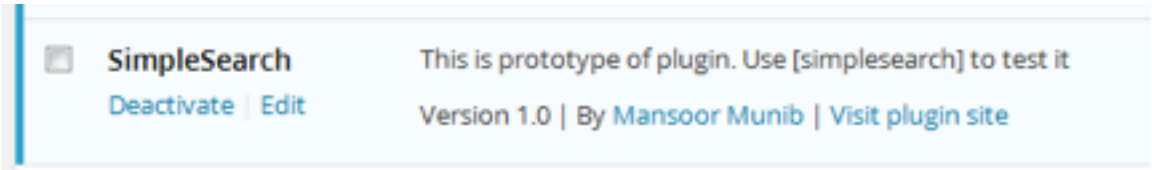
Theme check (automated testing)

Theme unit test (xml data)

Beta tester (check with latest beta version)

Plugin Development

```
/*
 *Plugin Name: SimpleSearch
 *Plugin URI: http://www.dwinteractive.se/
 *Description: This is prototype of plugin. Use [simplesearch] to test it
 *Author: Mansoor Munib
 *Version: 1.0
 *Author URI: http://www.linkedin.com/in/mansoormunib
 */
```



□ SimpleSearch

This is prototype of plugin. Use [simplesearch] to test it

Version 1.0 | By Mansoor Munib | Visit plugin site

Load CSS and Java script

```
wp_register_script( 'ss-script', SS_PLUGIN_URL ."/js/ssScript.js", array('jquery'), "1.0", true );
wp_register_style( 'ss-style', SS_PLUGIN_URL ."/css/ssStyle.css", array(), '1.0', 'all' );
wp_localize_script( 'ss-script', 'ssAjax', array( 'ajaxurl' => admin_url( 'admin-ajax.php' )));
```

Function

```
add_action('wp_ajax_ss_plugin_fn', 'get_simplesearch_ajax');
add_action( 'wp_ajax_nopriv_ss_plugin_fn', 'get_simplesearch_ajax' );

function get_simplesearch_ajax() {
if(isset($_REQUEST['searchterm'])){
      echo ‘Search term is ’.$_REQUEST['searchterm'];
      //write search query and return result;
}else
      echo ‘No search term found’;

die();
}
```

Access via Ajax

```
$( "#searchform" ).submit(function( event ) {

        var dataString = 'action=ss_plugin_fn&searchterm='+ $
('#searchterm').val();
        $.ajax({ type: "POST", url: ssAjax.ajaxurl, data: dataString, cache: false,
success: function(response){
                if(response != 'error') {
                    $('#serch_output').html(response);
                }
            }
         });
        event.preventDefault();
    });
```

Best practices

Wordpress Coding Standards and Namespace

Consider Security Seriously, Turn on debug, use Nonces for Form and URL Verification

Access database through WP function.

Use nonce while saving entry into database.

Sanitize and validate user input through built-in functions

Load Only required resources

Don’t use deprecated functions. Instead of removing deprecate so user will get notified

Thank you