

Customizing Gutenberg

Lessons learned at Georgetown

Hello! My name is Joni.

You can follow along at

<https://talks.thatdevgirl.com/gutenberg>

@GU Web Services

- Small (but mighty!) team of PMs, designers, & devs

What do we do?

Manage all* the sites

* (where all == most)

- 300+ websites in a multisite Drupal 7 env
- Sites use 1 of 3 themes
 - Schools
 - Departments (units)
 - "Top tier" has a unique theme

But...

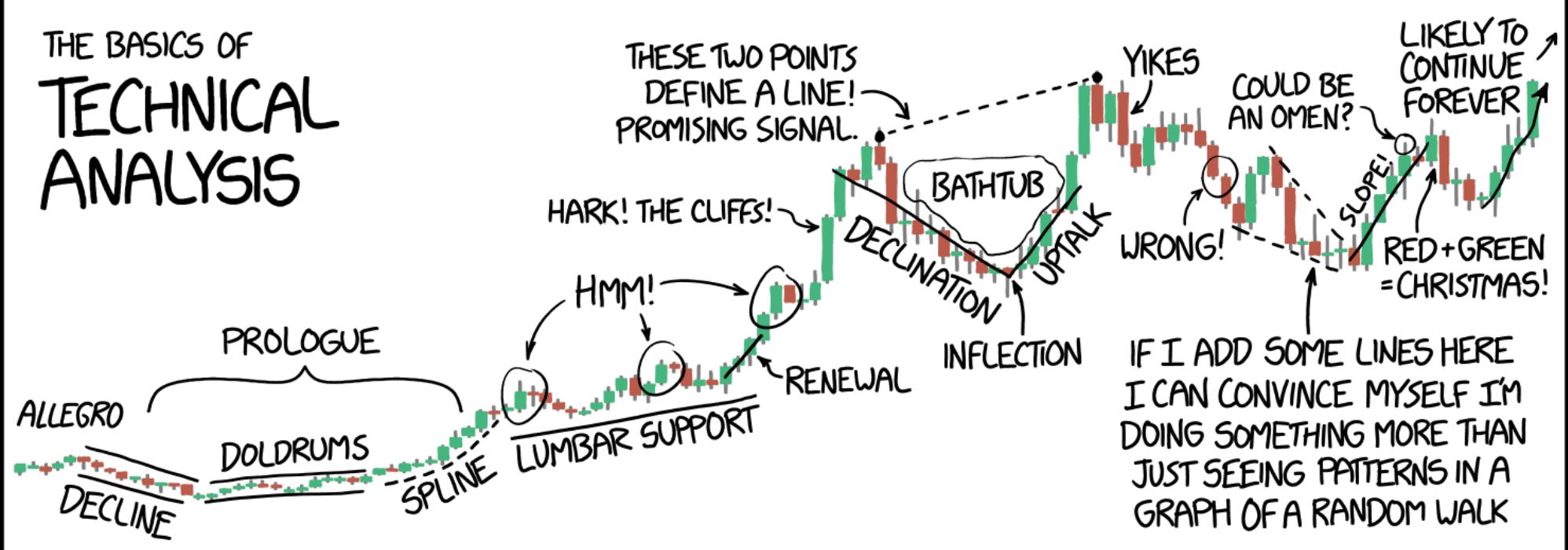
- Old theme code is pretty spaghetti
- Launched new D7 themes in 2016, but....
- D7 end of life is coming!

We need to upgrade!

Drupal 8?

Or... what about WordPress?

THE BASICS OF TECHNICAL ANALYSIS



And the winner is... Wordpress!

- Easier admin UI
- Easier to maintain
- Gutenberg is new and exciting

Quick vocabulary note

(Because old habits die hard)

- Pre-5.0: "Gutenberg" was the editor & the project
- Now: "Gutenberg" is the project
- Now: "The Editor" is... the editor

OK... decision made!

Now what?

Content goals

- Make full use of Gutenberg
- Make sure all blocks are accessible
- Support the content needs and expectations of our editors

Step 1

Get to know the editor

Toolbar

Block

Title of the page

T H2 H3 H4 B I ABC

Heading 2

Jelly-o gummi bears wafer. Oat cake cupcake bonbon toffee. Jelly tiramisu gummi bears jelly beans dragée dragée cupcake fruitcake. Jelly beans pastry toffee halvah caramels. Jujubes chocolate cake croissant powder marshmallow lemon drops jujubes gingerbread

Inspector panel

Document Block

T Heading
Introduce new sections and organize content to help visitors (and search engines) understand the structure of your content.

Heading Settings

Level

Text Alignment

Block

A single element in the UI.

Toolbar

Each block can have a UI toolbar that appears above the block in the editor. It can include things like font options, alignment, and more.

Inspector panel

(Also called the block panel)

The panel that appears to the right of the editor when a block is active.

Core editor blocks

(Can be selected from the Block Selector)



Search for a block

Common Blocks



Paragraph



Heading



Inline list



List



Button



Image



Quote



Events



Expandable
Content

e page



ABC



er. Oat cake c

y beans drag

halvah caran

hallow lemon

rs macaroon

sesame snaps sweet tootsie roll. Toffe

sugar plum liquorice muffin tiramisu. J

Step 2

Do core blocks cover all of our
needs?

Content Audit

- Blocks we can use
- Blocks we can't use (#a11y)
- Blocks we need but don't exist

McCourt School of Public Policy

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Dean's Welcome Note


Image
Heading
Paragraph

Welcome to the McCourt School of Public Policy



When I came to Georgetown twenty years ago, many public policy challenges were similar to those we face today. We needed to reinvent government to be more efficient. We were worried about health care. Politicians bickered.

But the policy environment has become even more challenging. Populist anger at big city elites and internationalization has led to massive political change in many countries. Older people often feel left behind; many young people feel locked out.

Programs for Individuals

EXECUTIVE MASTER IN POLICY LEADERSHIP

The EMPL prepares public, private, and non-profit professionals with the knowledge and leadership skills necessary to advance to senior leadership and executive level positions. The 30-credit curriculum has been designed with special attention to the Executive Core Qualifications (ECQs) for the Senior Executive Service (SES).

[EMPL PROGRAM INFORMATION](#)

EXECUTIVE INSTITUTE

The Executive Institute sponsors a variety of short courses throughout the year that help working professionals develop new skills to accelerate their careers. These courses are open to the public and are taught by full-time faculty or expert practitioners.

[VIEW OUR SHORT COURSES](#)

CERTIFICATE IN EDUCATION FINANCE

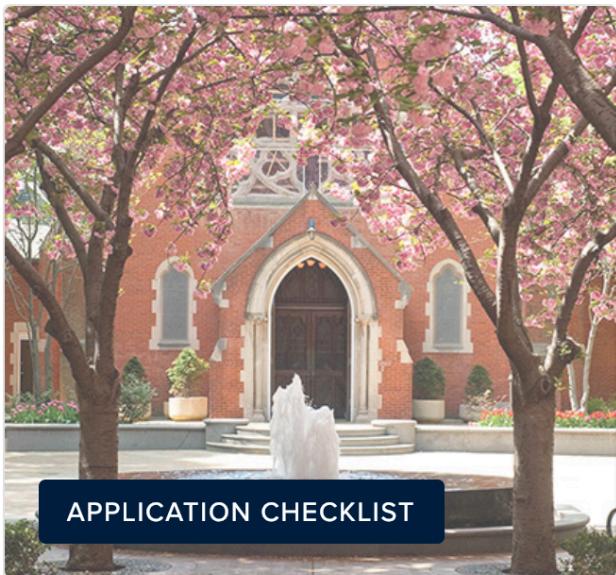
The CEF program helps participants build practical fluency in how management decisions, wide-ranging policies, and resource allocation intersect to impact student success across multiple contexts, including their own.

[EDUCATION FINANCE INFORMATION](#)

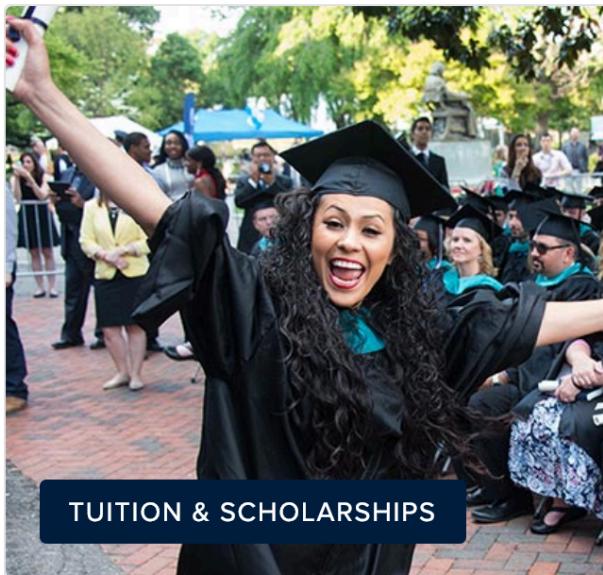
CERTIFICATE IN HEALTH POLICY

This certificate is designed to provide a theoretical and practical understanding of how the public policy process works, grounding in major health policies, and in-depth skills on how to influence and navigate health policy in today's challenging political and policy environment.

[HEALTH POLICY INFORMATION](#)



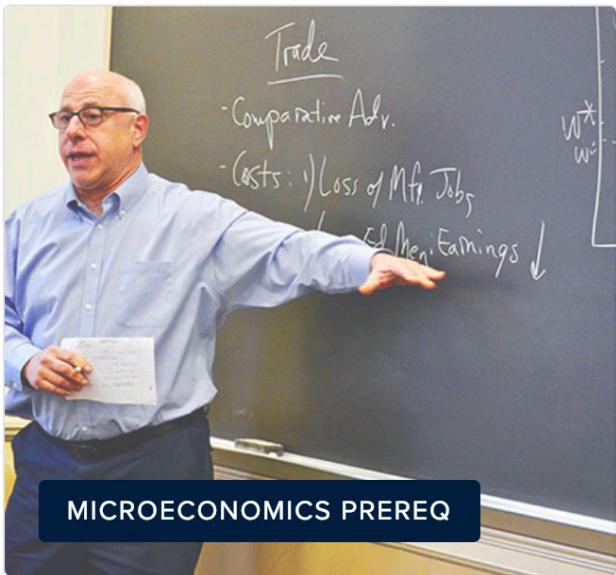
APPLICATION CHECKLIST



TUITION & SCHOLARSHIPS



ADMISSIONS EVENTS & VISITS



MICROECONOMICS PREREQ



MCCOURT AMBASSADORS



ADMISSIONS FAQ

Step 3

We need custom blocks!

Development phase

- Worked from list of "blocks we need but don't exist"
- We started in early 2018
- Mostly done, but still adding and tweaking blocks
- We learned a ton over the past year!

Lesson 1

Know React.js before you start

Gutenberg is:

- Based on React
- But, you're really dealing with its API

Creating a new block is easy!

- You only need a little bit of PHP
- Most of the work is in the JS

The PHP

```
function gu_hello() {
    $blockJsPath = 'build/block.min.js';

    wp_enqueue_script(
        'gu-hello-block',
        plugins_url( $blockJsPath, __FILE__ ),
        array( 'wp-blocks', 'wp-components' ),
        filemtime( plugin_dir_path( __FILE__ ) . $blockJsPath )
    );

    add_action( 'enqueue_block_editor_assets', 'gu_hello' );
}
```

The Javascript

```
registerBlockType( 'gu/hello-world', {
  title: 'Hello World',
  description: 'Use this block to say hello.',
  category: 'common',
  icon: 'admin-home',
  keywords: [ 'hi', 'greetings' ]

  attributes: { ... },
  edit: ( props ) => { ... },
  save: ( props ) => { ... },
} );
```

Title

This is the title of the block, which appears in the block selector. It is best to keep this short.

```
title: 'Title of the block'
```

Description

This is a short description of the block, which appears in the inspector panel, just below the title, when the block is active in the edit screen.

```
description: 'Description of the block'
```

Category

Blocks in the block selector are organized by category. There are OOTB categories or you can define your own.

```
category: 'common'
```

Icon

The icon that appears in the block selector for the block. This can be a Dashicon or a custom SVG.

```
icon: 'admin-home'
```

Keywords

- Kind of like SEO keywords
- The selector search box can already find blocks by words from the block title. These are extra terms.
- Hard limit of 3

```
keywords: [ 'one', 'two', 'three' ]
```

Attributes

The data saved for the block.

```
attributes: {  
  name: { default: '' }  
}
```

Edit function

The UI displayed in the block editor.

```
edit: ( props ) => {
  const { name } = props.attributes;

  const onChangeName = ( value ) => {
    setAttributes( { name: value } )
  };

  return (
    <h1>Hello

    <TextControl
      tagname='span'
      placeholder='Add your name'
      value={ name }
      onChange={ onChangeName } />
  );
}
```

Save function

The UI displayed on the front-end.

```
save: ( props ) => {
  // Get the attribute values needed from props.
  const { name } = props.attributes;

  // Return the front-end HTML.
  return (
    <h1>Hello { name }</h1>
  );
}
```

Lesson 2

The Gutenberg API is your new
BFF

Gutenberg Github

- Everything is divided into packages
- Some central documentation
- But, most documentation is within each package
- You need to know where to look

[Code](#)[Issues 1,511](#)[Pull requests 246](#)[Projects 7](#)[Wiki](#)[Insights](#)

The Block Editor project for WordPress and beyond. Plugin is available from the official repository. <https://wordpress.org/gutenberg/>

[wordpress](#) [gutenberg](#) [wordpress-plugin](#)

8,910 commits

315 branches

785 releases

364 contributors

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Branch: master ▾

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 aduth	Plugin: Remove 5.0-merged block registration functions, integrations (#...)	...	Latest commit b9e7686 27 minutes ago
 .github	Add a line to PR template for developer documentation (#12822)		a month ago
 assets/stylesheets	Remove no longer used z-index. (#13322)		8 days ago
 bin	Revert "Build: Change package build step to async flow (#8093)" (#13195)		16 days ago
 docs	Plugin: Remove 5.0-merged block registration functions, integrations (#...)		27 minutes ago
 languages	Build: Include string extraction in production build (#5308)		11 months ago
 lib	Plugin: Remove 5.0-merged block registration functions, integrations (#...)		27 minutes ago
 packages	[Mobile] Improve keyboard hide button (#13415)		2 hours ago
 phpunit	Plugin: Remove 5.0-merged block registration functions, integrations (#...)		27 minutes ago
 test	Tests: Extract e2e test utils to their own package (#13228)		8 days ago
 vendor	Install `phpcs` using Composer (#1022)		2 years ago
 .browserslistrc	Build: using a postcss plugin to generate the admin-schemes styles (#...)		8 months ago

Components

- UI elements that can be added to a custom block
- Two lists of components:
 - general components: [/packages/components](#)
 - editor components: [/packages/editor](#)

Example: Dropdown Menu

This component is very well documented!

<https://github.com/WordPress/gutenberg/tree/master/packages/components/src/dropdown-menu>

Blocks

- /packages/blocks
- Code for block registration
- No documentation here, but...

Developer handbook

- In the docs folder under /packages/docs/designers-developers/developers
- Great documentation about block registration, deprecation, etc

Also... core block code

- /packages/block-library
- Very useful to see real world examples of how components are used

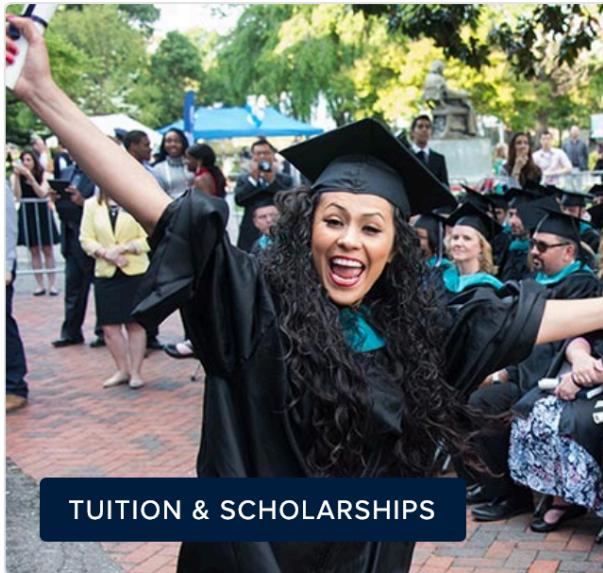
Lesson 3

"Fancy stuff" isn't that hard either!

Remember our cards?



APPLICATION CHECKLIST



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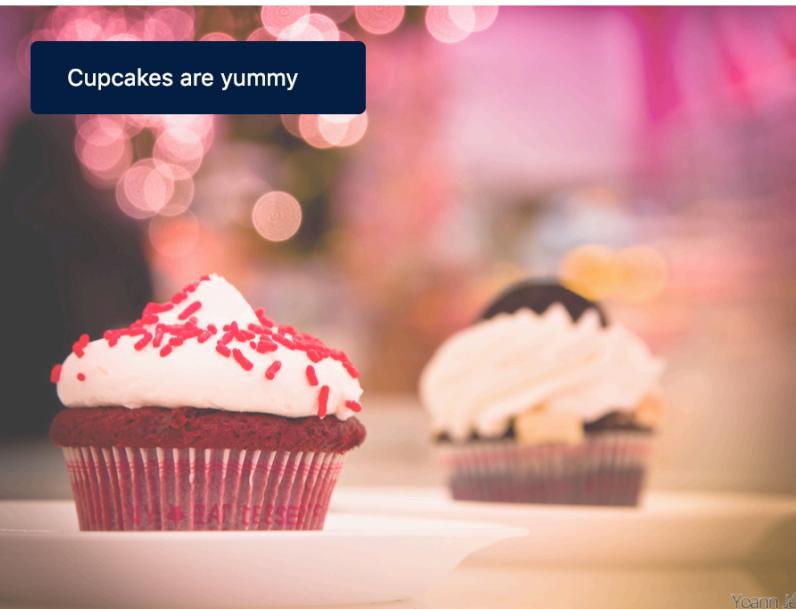
ADMISSIONS FAQ

Nested blocks

- Content blocks inside content blocks
- Just like creating a regular block...
- But now you need 2: **parent + child**

The parent block

Image overlay test



Document Block X

Image overlay card deck

Use this block to create a group of image overlay cards.

Number of cards per row ^

3

This card deck may display between 2 and 4 cards per row on large screens.

Button position ^

- Top Left
- Top Center
- Top Right
- Middle Left
- Middle Center
- Middle Right
- Bottom Left
- Bottom Center
- Bottom Right

This is the position for buttons on all cards in the deck.



The parent block:

- Has its own attributes
- Is registered just like any other block
- Allows child blocks, but only from specified list
- Children can be any block (OOTB or custom)

```
edit: ( props ) => {
  const allowedBlocks = [ 'gu/img-overlay-child' ];

  const getCardsTemplate = memoize( ( quantity ) => {
    return times( quantity, () => [ 'gu/img-overlay-child' ] );
  } );

  return (
    <div>
      <InnerBlocks
        template={ getCardsTemplate( 3 ) }
        allowedBlocks={ allowedBlocks }
      />
    </div>
  );
}
```

The child block

Image overlay test



Cupcakes are yummy

Yoann Jér



<https://google.com>



Document Block X



Image overlay card

A single image overlay card, for use in the image overlay card deck.

The child block:

- Has its own attributes (separate from parent)
- Is no different than any other block

Lesson 4

Know what you want...
or be OK with refactoring

(Seriously, either is fine)

We didn't exactly know what we wanted

- We know what kinds of content we need
- But, what is the best way of presenting it in the admin UI?
- So. Many. Options.
- Design and design and design (#agile)

Lesson 4.5

Let users play with your blocks

Real blocks. Real users.

- We let real users migrate their sites into WordPress
- We got tons of great feedback (#uxtesting)
- Decided to refactor our more complex blocks (*ahem* Card decks *ahem*)

Going back to cards

- Editing options were inline in the block
- This bloated the block and made editing awkward

Epiphany!

Components could go inside the block editor...

But, they can also go inside the **inspector panel**!

Before...

 Image overlay card
A single image overlay card, for use in the image overlay card deck.

Image overlay test

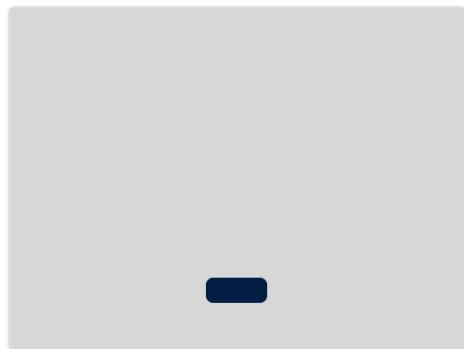
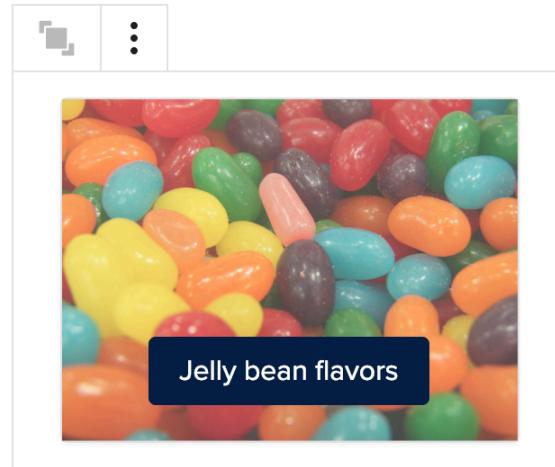


<https://google.com>



After!

image overlay test



Document Block X

Image overlay card
A single image overlay card, for use in the image overlay card deck.

Card background image selection ^

Edit selected image

Remove image

Link options ^

Button text
Jelly bean flavors

Link URL
Paste URL or type to search

Lessons summary

1. Life will be much easier if you
already know React.

2. Get to know the Gutenberg Github API.

3. Figure out what you really need.

4. Be OK with refactoring if something isn't working.

5. Breathe.

Thank
You

These slides are available at
<https://talks.thatdevgirl.com/gutenberg/>

Contact me at her@thatdevgirl.com or [@jonihalabi](https://twitter.com/jonihalabi)

Learning Gutenberg

- Organic Themes: How To Create A Custom Block For Gutenberg
- Zac Gordon: Gutenberg Block Development Course
- Lynda: Learning React JS

Other resources

- Gutenberg project Github
- Documentation about creating new blocks
- SVG to JSX Heroku app

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