MAVEN
A New Direction for UI/UX at Northwestern

October 20, 2015

Kelly Stack
Director of Digital Strategy in Global Marketing at Northwestern

Alex Wang
EECS junior in McCormick, Lead Designer and Developer of MAVEN

Harlan Wallach
Associate Director of Media and Design in NUIT A&RT
What is MAVEN?

• **MArketing VEndors Network**

  • A web-based content management system and mobile applications suite (iOS and Android) allowing marketers on staff at Northwestern to share the names, project scopes, and ratings of vendors they’ve employed.
Why is MAVEN important?

• First University-wide app designed specifically to augment efficiency in marketing departments across the University.

• First example of UI/UX/design in an app using the new branding.
Maven
Under the Hood

Alex Wang
MEAS Class of 2017
The Maven system will be launching soon!

Submitted by mavenadmin on Thu, 08/27/2015 - 16:13

Hey folks,
We've been working hard for the past two months and will be launching Gumbo beet greens corn soke endive gumbo gourd. Parsley shallot courgette tatsoi peas sprouts fava bean collard greens dandelion okra wakame tomatoes. Dandelion cucumber eartnut pea peanut soke zucchini.

Featured Vendors

Jim Prisching Photography

Steven E. Gross & Associates
Content and UX Parity
Stack – Website and CMS

Drupal
Stack – Mobile App

[Logos for Angular, Ionic, and another logo]
Architecture
Challenge: Login Process

MOBILE APP

NETID LOGIN → IS TOKENCached? y/n

IN-APP Browser

NETID-TOKEN

DRUPAL

is user logged in? y/n
does user have token? y/n
create token
redirect to
/netid-token?oauth_consumer_key = ...

get token from URL
cache token
get user info
App
Challenge: AngularJS Performance

- Dual binding
- Watchers and digest loop
- Scalability?
Challenge: AngularJS Performance

```html
<div ng-repeat="category in categorized_vendors">
  <div ng-show="category.vendors.length">
    <h3>{{category.category_name}}</h3>
    <vendor-card ng-repeat="vendor in category.vendors"></vendor-card>
  </div>
</div>
```
Challenge: AngularJS Performance

• One time binding
  • Deregisters watchers once a value is stable
Challenge: AngularJS Performance

```html
<div ng-repeat="category in ::categorized_vendors">
  <div ng-show="category.vendors.length">
    <h3>{{category.category_name}}</h3>
    <vendor-card ng-repeat="vendor in category.vendors"></vendor-card>
  </div>
</div>
```
Challenge: AngularJS Performance

• Recompile
  • [http://kentcdodds.com/kcd-angular/#/kcd-recompile](http://kentcdodds.com/kcd-angular/#/kcd-recompile)
  • Best of both worlds
Challenge: AngularJS Performance

```javascript
(function () {
  'use strict';

  angular
    .module('maven.directives')
    .directive('recompile', recompile);

  function recompile ($compile, $parse) {
    return {
      scope: true,
      compile: function(el) {
        var template = getElementAsHtml(el);
        return function link(scope, $el, attrs) {
          var stopWatching = scope.$parent.$watch(attrs.recompile, function(_new, _old) {
            if (_new) {
              $parse(attrs.recompile).assign(scope.$parent, false);

              var newEl = $compile(template)(scope.$parent);
              $el.replaceWith(newEl);

              stopWatching();
              scope.$destroy();
            }
          });
        };
      }
    }

  function getElementAsHtml(el) {
    return angular.element('<a></a>').append(el.clone()).html();
  }

})();
```
Challenge: AngularJS Performance

```html
<div recompile="recompile.vendors">
  <div ng-repeat="category in ::categorized_vendors">
    <div ng-show="category.vendors.length">
      <h3>{{category.category_name}}</h3>
      <vendor-card ng-repeat="vendor in category.vendors"></vendor-card>
    </div>
  </div>
</div>
```
nux.northwestern.edu/apply

nux studio - student developer application

Want experience in mobile app design and development?
Want an awesome job on campus, designing and coding cross-platform mobile apps for the NU student body?

Apply to be a part of NUX Studio!

We are a team of undergraduate student developers working to improve students’ interaction and user experience with Northwestern’s network resources. We seek to enhance and build student engagement through mobile applications.

If you have HTML, CSS, JavaScript, Objective C, Java, PHP, Ruby, graphic or web-design experience, we want you! This is your opportunity to work with other talented student developers to build exciting mobile apps that students will use on a daily basis.

Apply below! Work Study is NOT required.

For more information about NUX Studio, visit our website: http://nux.northwestern.edu

Your Name: *

Your Email: *

Year: *
- Freshman
- Sophomore
- Junior
- Senior
- Other

Resume: *
- Choose File: No file chosen

Valid formats: HTML, ODF, PDF, DOC, DOCX

Size limit: 800 KB

Your Skills / Experience: *

Briefly describe your design and development experience (e.g. HTML, CSS, JavaScript, PHP, Ruby, Graphic / Web Design, etc.). Where appropriate, please include URLs to any live web projects, demos, open-source repositories, etc.
nu.x.northwestern.edu/apply

A Timeline For The Project...
nux.northwestern.edu/apply

4 1/2 Months

Complete Drupal CMS
Original Theming
Web Services
2 Mobile Apps (iOS and Android)
Introduction

Why experience in mobile app design and development?

Want an awesome job on campus designing and coding cross-platform mobile apps for the NU student body? Join NUX, NU's student-developed mobile app studio.

App to be a part of NUX studio - student developer application

What are we looking for?

Applicants are expected to have an understanding of at least one mobile development platform (iOS, Android, etc.) and experience with mobile app design and development tools.

Apply today!
nux studio - student developer application

Want experience in mobile app design and development?

Want an awesome job on campus, designing and coding cross-platform mobile apps for the NU student body?

Apply to be a part of NUX Studio!

We are a team of undergraduate student developers working to improve students' interaction and user experience with Northwestern's network resources. We seek to enhance and build student engagement through mobile applications.

If you have HTML, CSS, JavaScript, Objective C, Java, PHP, Ruby, graphic- or web-design experience, we want you! This is your opportunity to work with other talented student developers to build exciting mobile apps that students will use on a daily basis.

Apply below! Work Study is NOT required.

For more information about NUX Studio, visit our website: http://nux.northwestern.edu

Your Name: *

Your Email: *

Year: *
- Freshman
- Sophomore
- Junior
- Senior
- Other

Resume: *

Choose File: No file chosen

Valid formats: HTML, ODF, PDF, DOC, DOCX
Size limit: 800 KB

Your Skills / Experience: *

Briefly describe your design and development experience (e.g. HTML, CSS, JavaScript, PHP, Ruby, Graphic / Web Design, etc.). Where appropriate, please include URLs to any live web projects, demos, open-source repositories, etc.
Upcoming Schedule

Amazon Web Services
November 11, 2015

For dates and registration information, go to it.northwestern.edu/learning/mobilemeetups