The Emperor's New Clothes: Redressing the U.S. Climate Resilience Toolkit

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The U.S. Climate Resilience Toolkit was launched by the White House on November 17, 2014. The website was designed to help people find and use tools, information, and subject matter expertise to build climate resilience, and offers information from all across the U.S. federal government in one easy–to–use location. The goal is to improve people's ability to understand and manage their climate–related risks and opportunities, and to help them make their communities and businesses more resilient to extreme events.

The site was built in response to the President's Climate Action Plan and Executive Order 13653 (Preparing the United States for the Impacts of Climate Change). The Executive Office of the President asked NOAA to lead development of the Toolkit, in partnership with NASA and other departments and agencies in the U.S. Global Change Research Program. The site is managed by NOAA's Climate Program Office and is hosted by NOAA's National Centers for Environmental Information.

Our group—UNC Asheville's National Environmental Modeling and Analysis Center, or NEMAC—is an integral part of the Toolkit's development team. The NEMAC team partnered with federal and local NOAA personnel in Asheville for the site's initial conception and development, working from the brainstorming stage through design, content development, and initial launch. In addition to the Toolkit's website, which we built in the Drupal content management system, we also developed its featured tool—Climate Explorer, a visualization tool that offers maps of climate stressors and impacts, as well as interactive graphs showing daily observations and long–term averages from thousands of weather stations across the nation. We continue to work closely with NOAA to manage and coordinate content generation and editorial tasks.

After the site's launch, NEMAC team members worked with NOAA personnel to design and lead climate resilience workshops in local communities, including Marquette, Michigan, Charleston, Asheville, Atlanta, Miami/Fort Lauderdale, Orlando, among others. Based on feedback garnered from users in these workshops and from other user experience testing, the Toolkit team realized that the site provided pertinent and valuable information, but that the user interface was not as intuitive as we had thought. The content was there, but users were overwhelmed and sometimes confused by the information presented—they were having difficulty finding the information they needed. In short, our emperor had no clothes.

This group presentation by NEMAC's Lead Science Editor, Principal Designer, and Principal Software Developer describes our team strategy, workflow, and process in giving the Toolkit website a new suit of clothes. Over a three–month period in 2016, and using the site's intact Drupal skeleton, NEMAC's team collaborated with the Toolkit's Editorial Team to rethink, redesign, recode, and implement a design "refresh" that seamlessly incorporates a new user interface and a new user experience.