



# User-Centered Software Design in the All Hazards Analysis Application

August 2024

*Changing the World's Energy Future*

Asia Kristen Haslam



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**August 2024**

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# User-Centered Software Design

## IN THE ALL HAZARDS ANALYSIS APPLICATION

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### USER-CENTERED DESIGN (UCD)

UCD is ‘the practice of creating engaging, efficient user experiences.’<sup>1</sup>  
The key principles are:<sup>2</sup>

- An early focus on users and their tasks
- Experience-based measurement of product usage
- A cyclical design process to refine the product based on user feedback

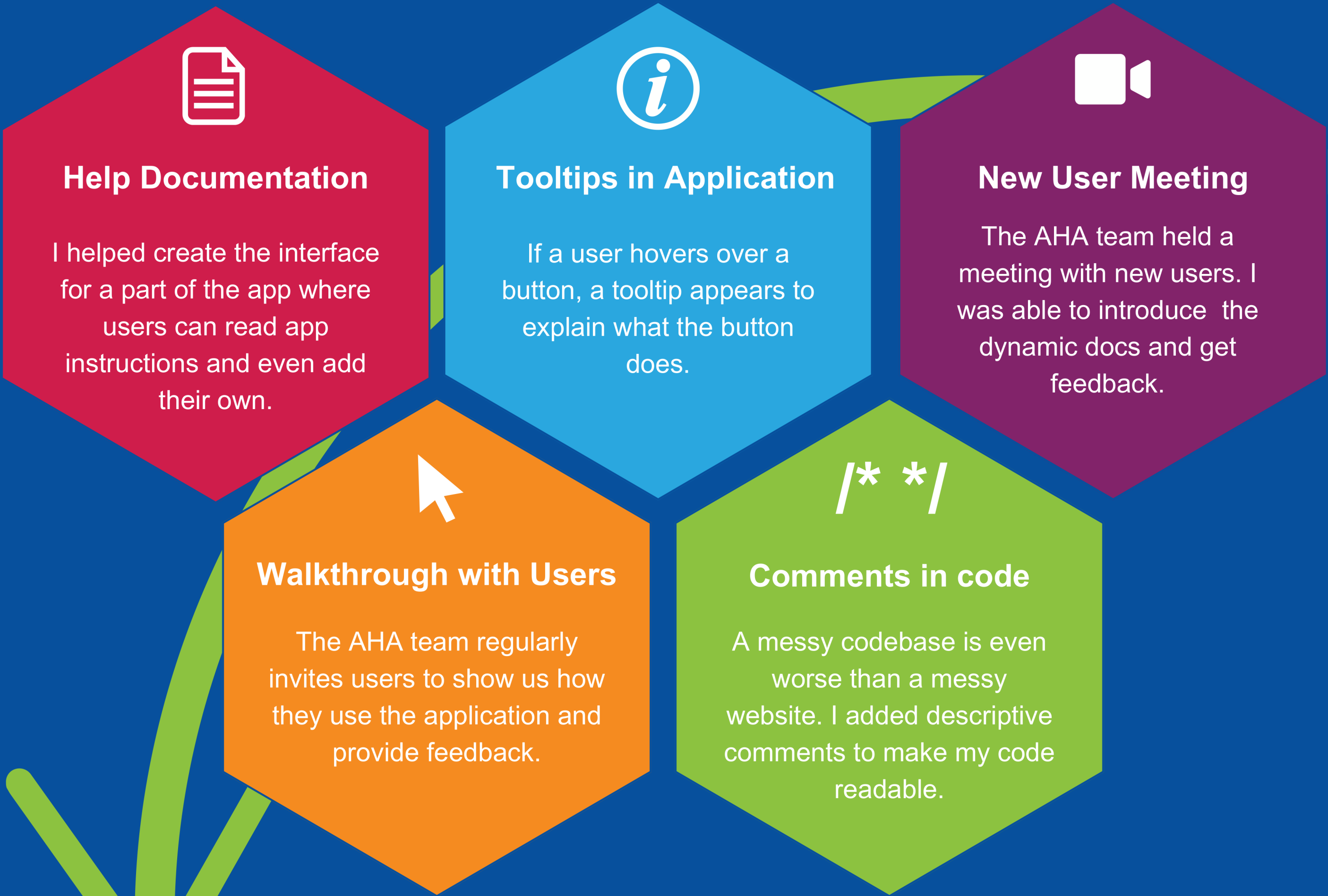
### BENEFITS OF UCD

- It’s easier to plan for the user throughout the design process than to redo all your work after the product is complete.
- A user-friendly product saves your users time and effort. If your product is difficult to use, your users may not even be aware of all its capabilities.

### CHALLENGES OF UCD

- UCD requires significant work up-front.
- The product goes through multiple revisions.
- Finding sample users to perform product testing can take effort.

### UCD IN THE ALL HAZARDS ANALYSIS (AHA) APPLICATION



### User Personas

User Personas are a UCD strategy to visualize key users of a product so you can design for their needs. These are AHA’s key users:

#### Advanced User Analyst

- Comfortable trying new features
- Works with data inputs and outputs
- **Goals:** app is powerful, allows them to work efficiently

#### New User Analyst

- May use app rarely
- Works mostly with data inputs
- **Goals:** app is user-friendly, easy to navigate

#### Analysis-Focused User

- High-level view of app
- Focuses on impacts of infrastructure disruption
- **Goals:** app displays information quickly, exports data

### LESSONS LEARNED + NEXT STEPS

- Incorporating UCD doesn’t have to be a long, expensive process.
- User-centered design is not just for software development—I even followed the UCD process while creating this poster!
- Based on AHA user interviews, new users need access to resources to learn how to use the application.
- AHA users will use the editable help documentation to create and share standard operating procedures.
- New features will be tested to validate that they are meeting the needs of the users.

