## 1. Introduction

This section is non-normative.

The goals of this specification include:

* Expanding the accessibility information that may be supplied by the author;
* Facilitate preference driven individual personalization;
* Enable the author to specify key semantics needed to support users with cognitive impairments

This is a proposal for defining syntax for adaptable content such as: links, buttons, symbols, help and keyboard. The proposed syntax will start by using [the data-\* mechanism provided by HTML5](https://html.spec.whatwg.org/multipage/dom.html%22%20%5Cl%20%22embedding-custom-non-visible-data-with-the-data-%2A-attributes)

Technology holds the promise of being extremely flexible and the design of many systems includes the expectation that users will be able to optimize their interaction experience according to their personal preferences or accessibility needs.

**1.1 Why We Need Personalization**

We need personalization because:

* The needs of individual user may conflict.
* Learning new design patterns, widgets, and user interfaces can be confusing. We would like to give users the ability to decide what works best for them based on preference and ability.
* Extra support can be a distraction for people who do not need it.
* Making content predictable is necessary for accessibility but can often lead to less innovate design.
* Ability to increase or decrease levels of complexity as people's skills improve or decline over time.
* Enable websites to adapt to and meet the user's needs.
* Some users need extra support. This can include:
* Symbols and graphics that they are familiar with
* Tooltips
* Language they understand
* Less features
* Separating advertisements so users don't confuse them with native content
* Keyboard short cuts

To achieve this we need standardized terms and supportive syntax. These can be linked to associated symbols, terms, translations and explanations. They are then provided to an individual based on personal preferences.

For example, assume an author can make it programmatically known that a button sends an email. Based on user preferences, the button renders with a symbol, term, and/or tooltips that are understandable by this particular user. It could automatically include F1 help that explains the send function in simple terms. It could be identified with a keyboard short cut that is always used for send. In addition, the button could be identified as important and always rendered, or always rendered very large.

Working examples of how this could be used in practice, with user preferences, are available on the task force [implementations page](https://github.com/w3c/personalization-semantics/wiki/Implementations-of-Semantics).

Another use-case we would like to see is interoperable symbol set codes for non-verbal people. Products for people who are non-vocal often use symbols to help users communicate. These symbols are in fact an individual's language. Unfortunately many of these symbols are both subject to copyright and are not interoperable. That means end-users can only use one device, and can not use applications or assistive technologies from a different company. An open set of references for symbol codes for these symbol sets however, could be interoperable. That means the end user could use an open source symbol set or buy the symbols and use them across different devices or applications. Symbols could still be proprietary but they would also be interoperable.

### 1.2 Use Cases

[Requirements for Personalization Semantics](https://w3c.github.io/personalization-semantics/requirements/) [[personalization-semantics-requirements](https://www.w3.org/TR/personalization-semantics-1.0/#bib-personalization-semantics-requirements)] elaborates many use cases that further contextualize the above summary of user needs. These use cases form the basis of requirements for this technology.

**1.3 Out Of Scope (Non-Goals)**

While the intention of this work is to introduce a new set of attributes to support Personalization, the following work items are out of scope:

* Develop an API for browsers or other user-agents
* Develop or produce supporting technology (browser extension, stand-alone software, etc.)
* Develop or produce an authoring tool to support the new attributes
* Produce a symbol set for <code>[data-symbol](https://w3c.github.io/personalization-semantics/content/index.html#symbol-explanation)</code>