A User Experience Note on Text Input Fields: When to display pre-filled info, side-step help, or nothing

The tremendous increase in data analysis and market trend in big-data stem logically from data collection in the first place. While a large part of this data collection is done without user knowledge, the other big chunk comes from manual user entry; and typically through the use of user input forms. With the help of some script, it is possible to pre-fill info into a text input field that, when the user starts typing in the field, becomes invisible. This pre-filled info, typically a higher color value like light grey, helps the user understand what is required of the form, often for validity. It is also possible to place some text next to a text input field in order to achieve a near-same result. Several differences exist between the two methods of helping the user from a user experience perspective and, with the growing form-input-data-collection trend, it is becoming increasingly critical to understand when to instantiate one method over another, when to utilize both methods effectively, or confidently abandon both.

Here, I'll propose a rule regarding helping a user fill out form data and then develop corollaries around that rule to help with this decision making process for designers and developers.

Text that provides help for users to fill out form data should be used whenever possible.

In practice, anything that helps users interact with technology should be utilized whenever possible, but adding features that help can degrade the simplicity that avoids the 'hurting' in the first place; interfaces become cluttered and confusing. So the question becomes how do we define 'whenever possible,' and will our definition hold over the long run and across a myriad of projects?

Attempting to set a long term standard for any user experience methodology is only possible when considering those base human factors that bubble up through the user experience. Such factors include the cognitive aspects of communication, response systems toward reward, inherent motivators of curiosity, and incessant drive toward learning. For form input data decisions, the elemental aspects to consider are metaphor, metonym, and conservation of energy for the user. We are concerned with metaphor and metonym because these variables govern communication- and communication is explicitly on trial here. The energy variable flows through all user processes from action speed, to action distance, to action anticipation, and also inherits the time variable.

Examining the differences between 'suggestion text,' high color value text appearing in an input box, and 'help text,' text appearing to the side of an input field, we see that both catalyze the same result of helping a user fill out a form. While suggestion text is typically limited to only a couple words, help text may be one or two sentences. This makes sense as the field input is limited on size whereas there is often more space around the field. So we have one obvious, but non-trivial, corollary already:

Use help text when suggestion text could extend beyond more than a couple of words.

Another issue that arises quickly from this is how the user experience is affected then by possibly having one form with multiple fields where it is possible to implement a combination of help and suggestion text. Here we can implement our conservation of energy law to make a satisfying decision. Considering a user's eye movement, then a combination of help and suggestion text would cause the energy expended to be at its greatest as the eye travels from side to inside the field and back again on down the form. (Note I am considering a form that is a single column and more than 5 inputs). So we have developed a second corollary:

Use as few variations between help and suggestion text as possible.

Now we arrive at what makes this issue most challenging to resolve- in order to follow the above corollaries we require subjective judgement and subjective judgement leads to debate and can impede project progression. But there is one objective criticism we can apply to the process when deciding on help text, suggestion text, both, or neither- at least based on user experience guidelines.

Apply the correct treatment based on what the user is thinking when they approach the input.

When a user approaches an input box, their intent should be pre-analyzed by the user experience team. Is the user approaching the box with a strong idea of what they will be inputting? An example of strong intent would be a username/password combo. An example of weak intent would be the VLAN MAC addresses of an unassigned server profile. Grading the user's intention at the input box level then helps the decision making process for utilizing help text, suggestion text, or neither.

At the interface design level, help text can also be used as the input label, cleaning the interface of redundancy and shrinking its footprint (especially advantageous for small form factor screens).