ITI0209: User Interfaces

10. Forms

Martin Verrev

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Forms remain one of the most important types of interactions for users on the web and in apps - they are often considered the final step in the journey of completing their goals. Users should be able to complete them quickly and without confusion.

Forms Consist of

- **Structure.** This includes the order of fields, the form's appearance on the page and the logical connections between multiple fields.

- **Input fields.** These include text fields, password fields, checkboxes, radio buttons, sliders and any other fields designed for user input.

- **Field labels.** These tell users what the corresponding input fields mean.

- **Action button.** When the user presses this button, an action is performed (such as submission of the data).

- **Feedback.** User is shown the result of their input through feedback. A message notifies user about the result and can be positive - if the form was submitted successfully or negative ("The number you've provided is incorrect").

Forms may also have the following components:

- **Assistance.** This is any explanation of how to fill out the form.

- **Validation.** This automatic check ensures that the user's data is valid.

Form Strucutre

Ask only what is required

Make sure to ask only what you really need. Every extra field you add to a form will affect its conversion rate. Always consider why you are requesting certain information from the user and how you will use it.

Order the form logically

Ask details logically from the user's perspective, not from the application or database's perspective. Typically, asking for someone's address before their name would be unusual.

Form Structure

Group related Information

Group related information into logical blocks or sets. The flow from one set of questions to the next will better resemble a conversation. Grouping together related fields will also help users make sense of the information they must fill in. Compare how it works in the contact information form below.
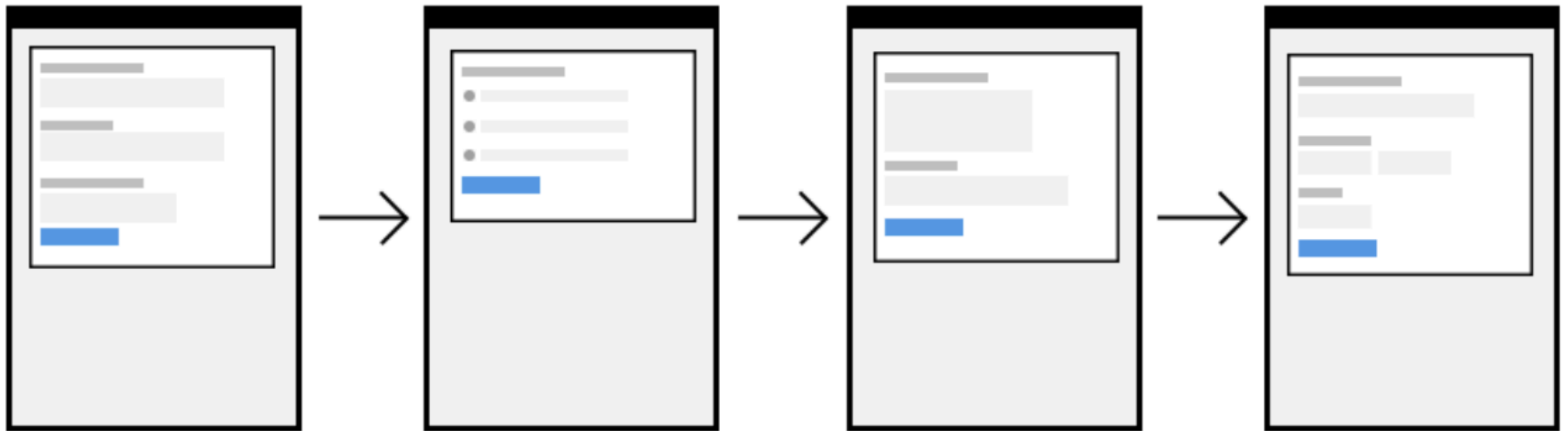
Form Structure

One vs Multiple Columns

If a form has horizontally adjacent fields, then the user must scan in a Z pattern, slowing the speed of comprehension and muddying the path to completion. But if a form is in a single column, the path to completion is a straight line down the page
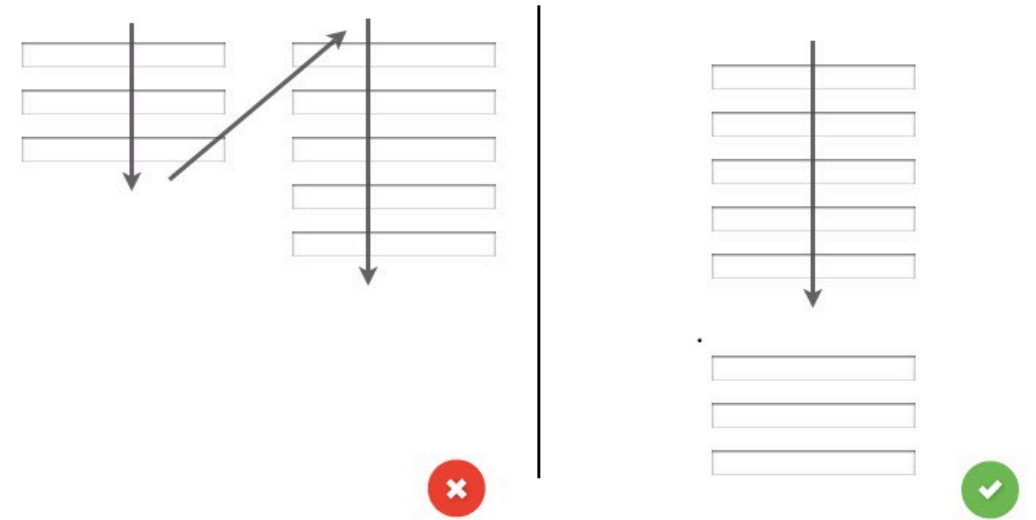
Form Structure

One Thing Per Page

Form Structure

One Thing Per Page

- People should be able to focus on one thing at a time, that reduces the cognitive burden.

- When users fill in a small form, errors are caught and shown early and often.

- If pages have little on them, they'll load quickly.

- By submitting information frequently, we can save user information in a more granular fashion.

- It adds a sense of progression and increases momentum

- It lets you design interfaces that capitalize on maximal screen space

Form Structure

Back links

Users expect it to take them to the previous page in the state they left it. Research might show you that it's useful to include a back link within the interface itself, and that users will be more inclined to trust it.

Input Fields

- A rule of thumb in form design - **shorter is better**. Displaying only five to seven input fields at a given time is a common practice.

- Try to **avoid optional fields** in forms. But if you use them, distinguish the mandatory fields clearly. If you decide to use an asterisk for mandatory fields, show a hint at the bottom of the form explaining what the asterisk is for, because not everyone understands what it means.

- **Avoid setting default values** unless you believe a large portion of your users will select that value. Particularly avoid it for required fields.

Input Fields

Use smart defaults - values set based on information available about the user. Smart defaults can make form completion faster and more accurate.Still, use these with caution,
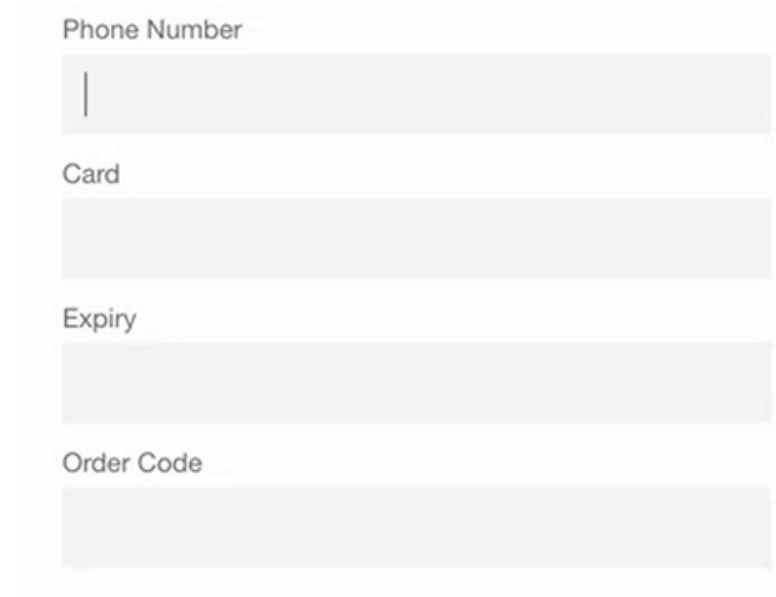
Billing Address

Country *

Australia

First Name *

Last Name *

See also: https://www.shopify.com/partners/blog/cognitive-load

Input Fields

Use **input masks**. A mask appears once a user focuses on a field, and it formats the text automatically as the field is being filled out, helping users to focus on the required data and to more easily notice errors.

See also: https://css-tricks.com/input-masking/

Fields on desktop

- Make forms **keyboard friendly**. Users should be able to focus on and edit every field using only the keyboard. Power users, who tend to use the keyboard heavily, should be able to easily tab through and edit fields, all without lifting their fingers off the keyboard.

```
<input type="text" tabindex="1">
```

- Add **autofocus** to input field. Autofocusing a field gives the user an indication and a starting point to quickly begin filling out a form. Provide a clear visual signal that focus has moved there.

```
<input type="text" autofocus>
```

Fields on Mobile

- **Match keyboard to input**. Phone users appreciate apps that provide the appropriate keyboard for text being requested. Implement this consistently throughout the app. https://developer.mozilla.org/en-US/docs/Web/HTML/Element/input#type

- Use **autocompletion**. Anything that can be done to prevent unnecessary typing will improve the user experience and decrease errors. Autocompletion makes it possible to eliminate a huge amount of typing. https://developer.mozilla.org/en-US/docs/Web/HTML/Attributes/autocomplete

Autofill

Most modern browsers can automatically fill in form fields, by way of the `autocomplete` attribute. When the user focuses a particular field, the browser checks if it has that information stored — if it does, the user can select it without having to type.

Memorable Dates

A memorable date is one that you remember easily such as your date of birth. Typing six digits unassisted into a text box is much quicker than scrolling, swiping, and clicking.

** Otherwise use a date picker **

Date of birth
DD MM YYYY

Day   Month   Year

Form Labels

Clearly written labels are one of the primary ways to make a UI more accessible. A good label tells the user the purpose of the field, maintains its usefulness when focus is on the field itself, and remains visible even after the field has been filled in.

Label Alignment

RIGHT ALIGNED

- BEST VISUAL CONNECTION BETWEEN LABELS AND FORMS
- GOOD COMPLETION RATES ON SHORT FAMILIAR FORMS
- REQUIRES LESS VERTICAL SPACE

- HARDEST TO READ AND SCAN
- POOR MULTI-LANGUAGE SUPPORT

TOP ALIGNED

- BEST COMPLETION RATES
- EASIEST FOR USERS TO "PROCESS"
- BEST FOR MULTI-LANGUAGE SUPPORT

- REQUIRE THE MOST VERTICAL SPACE
- NOT IDEAL FOR VERY LONG FORMS

Placeholders

The `placeholder` attribute is intended to store a hint. It gives users extra guidance when filling out a field

Unlike labels, hints are optional and shouldn't be used as a matter of course.

The placeholder's low-contrast, gray text is hard to read.

Password

Must be at least 8 characters

Use Label Placeholders with caution

Once the user clicks on the input field, the label will disappear, and so the user cannot double-check that they wrote what was being asked of them. Another problem is that users could mistake placeholder text for prefilled data and, hence, ignore it.

Bad Example:

First Name	Last Name

Email

Password	Confirm Password

Address

(Suite, Apt,...)

Zip Code	City	State

Action Buttons

- **Highlight primary action.** Reducing the visual prominence of secondary actions minimizes the risk of error and reinforces people's path to a successful outcome.

- **Button location.** Complex forms usually need a back button. Make it less accessible so used does not accidentally click it.

- **Button naming.** Avoid generic words such as "Submit" for actions, State what action the button will perform when clicked. The text should explicitly describe the action being taken. And because it's an action, it should be a verb

- **Avoid multiple actions.** Multiple action buttons distract users from their goal of submitting the form.

- **Make sure buttons look like buttons**.

Visual Feedback

Design the "Submit" button in a way that clearly indicates the form is being processed after the user's action. This provides feedback to the user while preventing double submission.
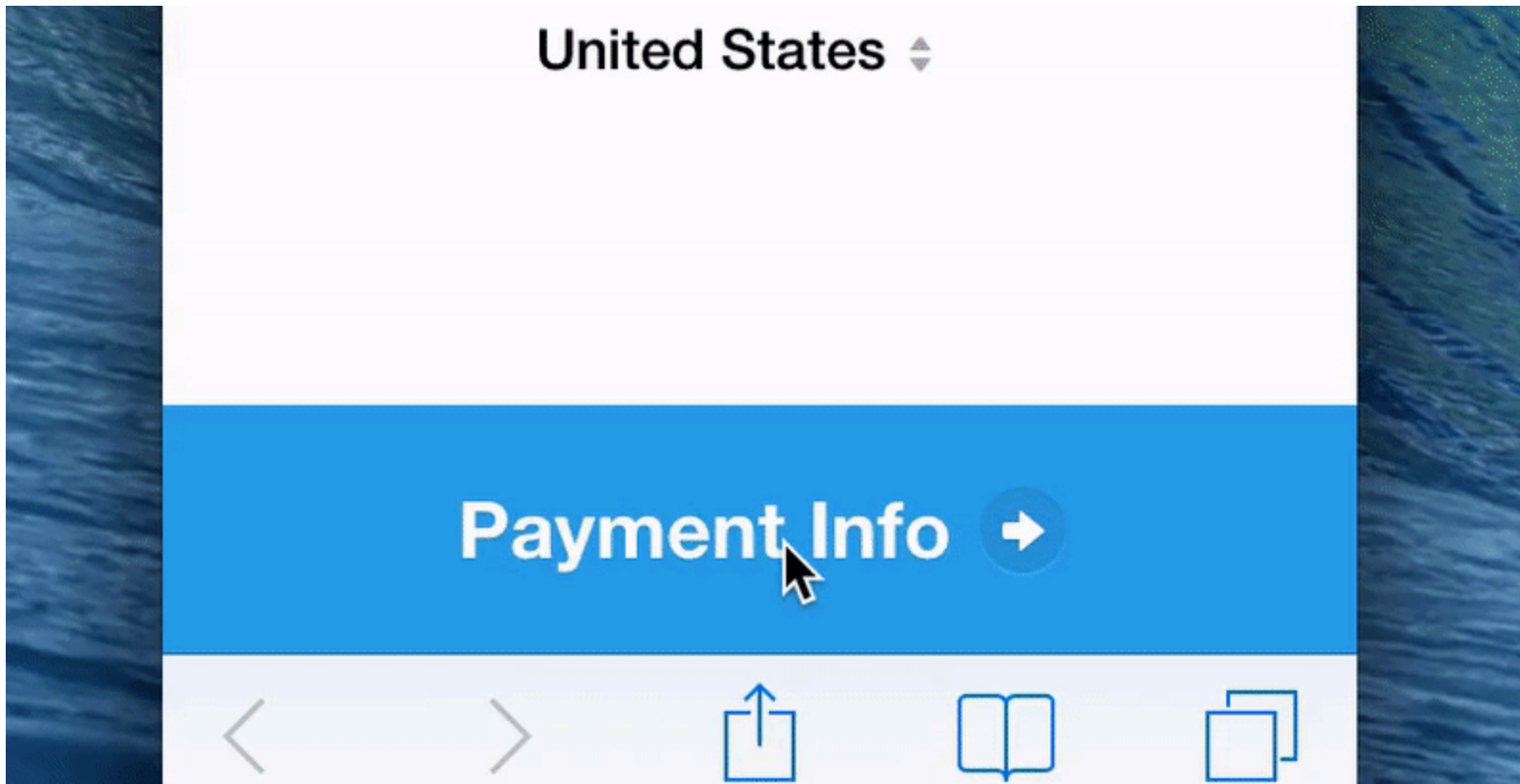
Validation

Form validation errors are inevitable and are a natural part of data entry. Error-prone conditions should be minimized, but validation errors will never be eliminated.

Use inline validation. Reward early, punish late.

User Registration

Username

Email

Email Confirmation

Password

Checklist Affirmation Pattern

A variation of live validation involves ticking off rules (marking them as complete) as the user types. This is less invasive than live validation but isn't suited to every type of field.

Password   👁 Show

[_____]
·

○ One lowercase character   ● One special character

● One uppercase character   ● 8 characters minimum

● One number

Checklist for good form error messages

- **Be concise.** Don't use more words than are necessary, don't omit words at the cost of clarity.

- **Be consistent.** Use the same tone, the same words, and the same punctuation throughout.

- **Be specific.** If you know why something has gone wrong, say so.

- **Be human, avoid jargon.** Don't use words like invalid, forbidden, and mandatory.

- **Use plain language.** Error messages are not an opportunity to promote your brand's humorous tone of voice.

- **Use the active voice.** For example, "Enter your name," not "First name must be entered."

- **Don't blame the user.** Let them know what's gone wrong and how to fix it.

Things to avoid

- Using the placeholder attribute as a mechanism for storing label and hint text.

- Using incorrect input types.

- Styling buttons and links the same.

- Validating fields as users type.

- Disabling submit buttons.

- Using complex jargon and brand-influenced microcopy.

Form Design Patterns

Adam Silver. 2018

https://formdesignpatterns.com/

Links

- Designing Efficient Web Forms: On Structure, Inputs, Labels And Actions. https://www.smashingmagazine.com/2017/06/designing-efficient-web-forms/

- Web Accessibility Tutorials. Forms. https://www.w3.org/WAI/tutorials/forms/

- Website Forms Usability: Top 10 Recommendations. https://www.nngroup.com/articles/web-form-design/

- Labels and Placeholders: https://www.nngroup.com/articles/form-design-placeholders/

- Web Form Design: Showcases And Solutions. https://www.smashingmagazine.com/web-form-design-showcases-and-solutions/

- Designing for Explicit Choice. https://www.smashingmagazine.com/2015/05/designing-for-explicit-choice/

Thank you!