

Defensive Design for the Web

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No matter how carefully you design a site,
No matter how much testing you do,
Customer will encounter problems.

Sites must plan for the inevitable breakdowns with defensive design. By improving defensive design, online business can help customers recover from mishaps increasing conversion rates & customer loyalty in the process.

Lets see the possible Crisis Points:

- Form error
- Page not found error
- Server Error
- Help Screen
- Inaccurate Search Results
- Out-of-stock Item
- A server malfunction
- A code bug
- Browser incompatibility
- Failed Internet Connection
- Unclear Language
- Confusing Design
- Sloppy Forms
- Pages that have been moved, deleted or renamed
- Countless other possibilities

Now Crisis points lead to:

- Abandoned shopping carts
- Failed registrations
- Irrelevant search results
- Increased support inquiries
- Customer frustration
- Customer bailouts

3 common results when a customer encounters a crisis point:

- The customer gives up and bails out
- The customer deals, but becomes frustrated & jaded
- The customer is helped back on track & has a satisfying customer experience

What is Contingency Design?

Contingency design -- design for when things go wrong.

Contingency design is the

- error messaging
- graphic design
- programming
- instructive text
- information architecture &
- customer service

All this prevents error & helps visitors get back on track after a problem occurs.

Effective contingency design:

- Helps prevent errors before they occur
- Helps get people back on track smoothly if an error does occur
- Shows you care by helping people when they need help most

Examples of successful contingency design:

- An error message that clearly explains how to fix the problem
- A form field that prevents a visitor from entering too many characters
- A form that validates responses before they are accepted
- Custom 404 screen that explains the problem & helps people get to desired page
- Contextual help (Definitions & inline FAQs)
- Login help (Forgot Password? link)
- Help copy that does not require a dictionary or technical manual to understand
- FAQs that solve the most common problems that plague customers
- A smart search engine that understands misspellings & other common errors
- Email notification for the return of an out-of-stock item

01 – Show the problem (Display obvious error messages & alerts)

Helpful error messaging is the first step toward getting troubled visitors back on track. State the error at the top of the page and also at the specific problem area. Use color, icons and text to make spotting and fixing errors simple. Utilize consistent techniques while identifying errors. Also make sure visitors don't have to backtrack for errors.

A] Give an error message that's noticeable at a glance:

A good error message lets a customer instantly know:

- That an error has occurred
 - An alert icon would help the message stand out even more
- What the error is
- How to recover
 - Be polite
- Where to give feedback

When handled properly, error messages are only a slight hiccup in the customer experience; customers spot the foul and quickly rectify the problem. Visitors won't stick around to piece together error clues – they will give up.

B] Use color, icons and text to clearly highlight and explain the problem area:

Make sure your error messages follow the rules:

- Clearly state the error at the top of the page & at the problem area that needs to be corrected.

Note: Poor messaging is bound to create further confusion.

Both the content & location of error message matter.

C] Always identify errors the same way:

- We should identify errors in a predictable, consistent manner
- Use the same colors, alerts, fonts, text and tone when explaining errors
- We should also place error messages in the same spot on each page
- Consistency instills a sense of trust because it demonstrates that a unified company operates the site. Faced with inconsistent messages, customers are liable to think one area of a company does not know what the other is doing

D] Eliminate the need for back & forth clicking:

- Whenever possible, collect errors & display them on a page that allows visitors to fix mistakes without backtracking
- Another approach is to narrow the scope of the page so that consumers are not faced with the entire form again. Accept the valid information entered and show a page where only the problem field is displayed

02 – Language Matters (Provide clear instructions)

Amateurish error messages speak only to professionals. Professional error messages speak to amateurs. Visitors who encounter crisis points are already frustrated and often on the verge of giving up. Unless they receive instructions that quickly explain and resolve the problem, they'll head for the nearest exit. Contingency design text should answer questions, not create them. If a visitor cannot quickly skim the page and understand what's happening, then it's time to rethink your messaging.

A] Don't use language that might be unfamiliar to your customers:

- Contingency design copy needs to speak to common people, not just techies
- Use terms that all visitors can comprehend
- Stay away from obscure codes, abbreviations, technical jargon or international marketing terms unfamiliar to customers. Use plain English that's easy, even for visitors who are not technically oriented
- Error messages must illuminate, not confound

B] Keep text brief & easy to understand:

- At crisis points, customers want to quickly know what went wrong and how to fix it. Don't force them to read an essay when a short note will suffice
- Use these tips to make your crisis point text helpful
 - Lead with a clear headline and the most important information
 - Offer bullet points rather than block of text
 - Use bold text & color variation to highlight crucial information
 - Edit copy so that its brief yet meaningful
- Do straight-forward messaging
 - State the reason for the message clearly at the beginning
 - Use a numbered list or bulleted points by easy scanning
 - Differentiate the important text
- Whenever possible, give visitors a single, clear message

C] Be polite:

- Politeness is more than just good etiquette – its good business. Upset customers need to be treated with kid gloves. So when something goes wrong at your site, be polite:
 - Don't take accusatory tone or place blame on the customer
 - Use words such as please and thank you
 - Don't use all caps because this can give the impression that you are screaming at customers
 - Think rejuvenation, not condemnation
 - Customers get frustrated when a site buries contact information or discourages feedback
 - Do all you can to humanize the interaction

03 – Bulletproof Forms (Create friendly forms that are easy to complete)

Forms are hassle. Invalid response, confusing choices and unacceptable entries constantly gum up the works. Many people give up on the forms that ask too many questions. Try to minimize the number of required fields whenever possible.

A] Highlight either required or optional fields:

Your forms must clearly highlight which fields are required and which fields are optional. Try to minimize the number of required fields whenever possible. Sites often use one or more of these techniques to highlight fields:

- An asterisk next to the field
- The word required or optional next to the field
- Required field titles in boldface

B] Accept entries in all common formats:

The fact is people will use different data formats at your site. That's why your forms should accept entries in all common formats

C] Provide sample entries, pull-downs and formatting hints to ensure clean data:

- Limit the range of entries. Use HTML form elements to ensure valid submissions. Open-ended text fields leave plenty of room for error. When given free range, visitors often wind up submitting entries that are unacceptable for one reason or another.
- Give formatting examples. Provide correct sample entries to prevent confusion.
- Use form layout to guide people in the right direction.

D] Explicitly state limits to characters, number of entries and so forth:

- If there is only a narrow range of acceptable characters or entries make sure you clearly explain the limit.

E] If customers can't choose it, don't show it:

- Eliminate unavailable options (a.k.a pre-validation).
- If the user cannot choose an entry, don't show it to him in the first place.

F] Validate entries as soon as possible:

- Validate form responses on the spot

G] Button up: Eliminate the Reset button & Disable the Submit button after it is clicked

H] Assist form dropouts by saving information:

Just because a visitor abandons a form, it does not necessarily mean he won't come back to complete it later. Your site can help visitors like this get back in the saddle by saving data as it is entered. Follow these measures:

- Save customer data. Automatically save-in progress forms.
- Use your site or email to remind visitors that they can easily jump back into an abandoned form process
- Enable people to quickly access & complete abandoned forms.

04 – Missing in Action (Overcome missing pages, images or plug-ins)

A] Offer customized “Page Not Found” error pages:

Smart things to include in 404 web pages:

- Company Logo & Name
- An explanation of why the visitor is seeing the page
- A list of common mistakes that may explain the problem
- Links back to the homepage and/or other pages that might be relevant
- A search engine that customers can use to find the right information

B] Successfully redirect near-miss URLs:

If its a URL mistake that occurs often, intervene and redirect surfers to the proper page

C] Use ALT tags for images:

Use ALT tags to describe your site’s images and their functions. If you don’t visitors will be forced to wait for the images to download before they can take action.

D] Offer alternative pages or upgrade info for old browsers:

Not all surfers will have the most recent browser or plug-in technology. Instead of merely rejecting these visitors, offer an alternative version of your content so that these potential customers are not shut out. If you can’t offer redundant versions of your content, make sure to explain the technology issue and offer links to the proper upgrades.

05 – Lend a helping hand (Offer help that’s actually helpful)

A] Answer questions on the same page they arise

Minimize clicks and save customers time by offering contextual help,⁸ which provides instructions and answers as close to the potential problem spot as possible. Benefit of contextual help is that visitors don’t have to leave a page to find answers elsewhere on your site.

B] Offer a “Help” section and provide clear links to it.

We need to clearly marked “Help” area to aid confused visitors. Some guidelines:

- Help should be an obvious link from your homepage and in the main navigation areas on all pages
 - Use a standard naming convention for the link
 - Organize your help section wisely
- Any size able help or FAQ section should:
- Offer “Help” search functionality
 - Emphasize top issues
 - Break down content into categories
 - Provide a contact link for further assistance

C] Let customers help themselves through online forums and training sessions.

Self help options such as community help boards and online training sessions can be a great resource for customers. These tools let people find answers on their own and lighten your support staff’s workload. Although these methods won’t replace your Help section, they can be another effective way to reach out to people in trouble.

D] Provide a fallback plan (help via chat, phone or email).

If customers can’t find the help information they need at your site, make sure you offer links to email, telephone, live chat or other support options

E] Respond to emails quickly & effectively.

Some tips for making support emails helpful

- Use a functional return address so that the customers cannot reply easily
- The first paragraph should offer a clear summary of emails content
- Use tracking numbers so that customers & support team members can refer to previous exchanges
- Explain what the reader should do next if the issue remains unresolved
- Sign the email so that the readers know who at your company sent it
- Most importantly answer the question that was asked.

F] Help login with tips or email.

Help out by offering a hint or email service to remind forgetful visitors of account information.

06 – Get Out of the Way

(Eliminate obstacles to conversion (e.g. unnecessary ads, registration, navigation, etc))

A] Don't disable the browsers Back button.

B] Make it fast, not cute.

When visitors are in trouble, get to the point and then get out of the way.

C] Don't force registration

When things fall apart, customers head for 'Help'. If you want to hold on these troubled visitors, don't force them to fill out a form to receive assistance. Give them immediate access to the support information that can help them overcome difficulties.

D] Don't block content with ads

Critical content should not be obstructed by ads or promotional offerings. This is especially true for error message screens and other crisis points. Ad revenues are important, but your site will lose money if they come at the expense of driving customers away for good.

D] Eliminate unnecessary navigation during multistep processes

During multi-step process such as checkout, unnecessary navigation options may act as an obstacle to customers. Eliminate extraneous elements so that visitors can complete the task at hand without distraction.

07 – Search & Rescue

(Deliver the right results with smart search engine assistance)

A] Offer a clear explanation when no results are found or inexact matches are shown

Can't find an exact for a visitors search? Be upfront about it. The fact that no results are found should be the first thing someone sees when a search fails. Clearly state there are no exact matches and offer an explanation if you have one.

B] Anticipate common errors and provide relevant results.

A small mistake should not cause the entire search process to break down. Help visitors get to the correct results by anticipating imperfect matches. If its a mistake you can predict, plan for it.

C] Too many results? Offer features that let searchers refine and filter results.

D] No results? Let customers easily expand search criteria.

E] Offer tips on how to improve results.

F] Don't rely on advanced searches.

08 – Out of Stocks and Unavailable Items

(Make sure unavailable items don't become dead ends)

- A] Be upfront about item unavailability
- B] If a product will be available at a later date, explain when, provide product details, and take advance orders
- C] Offer email notification.
- D] Show similar items that are available.