

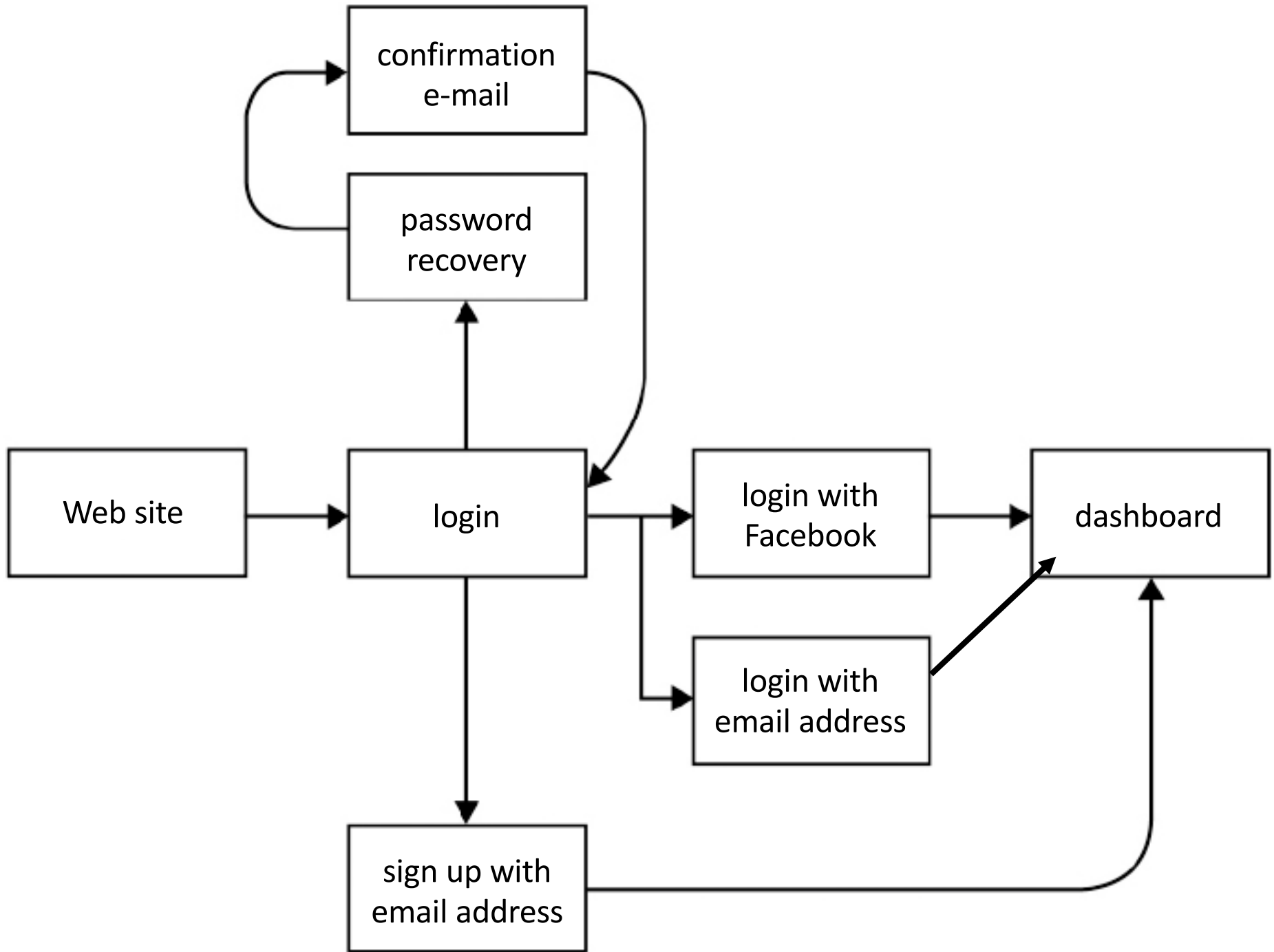
Human-Computer Interaction and Interfaces

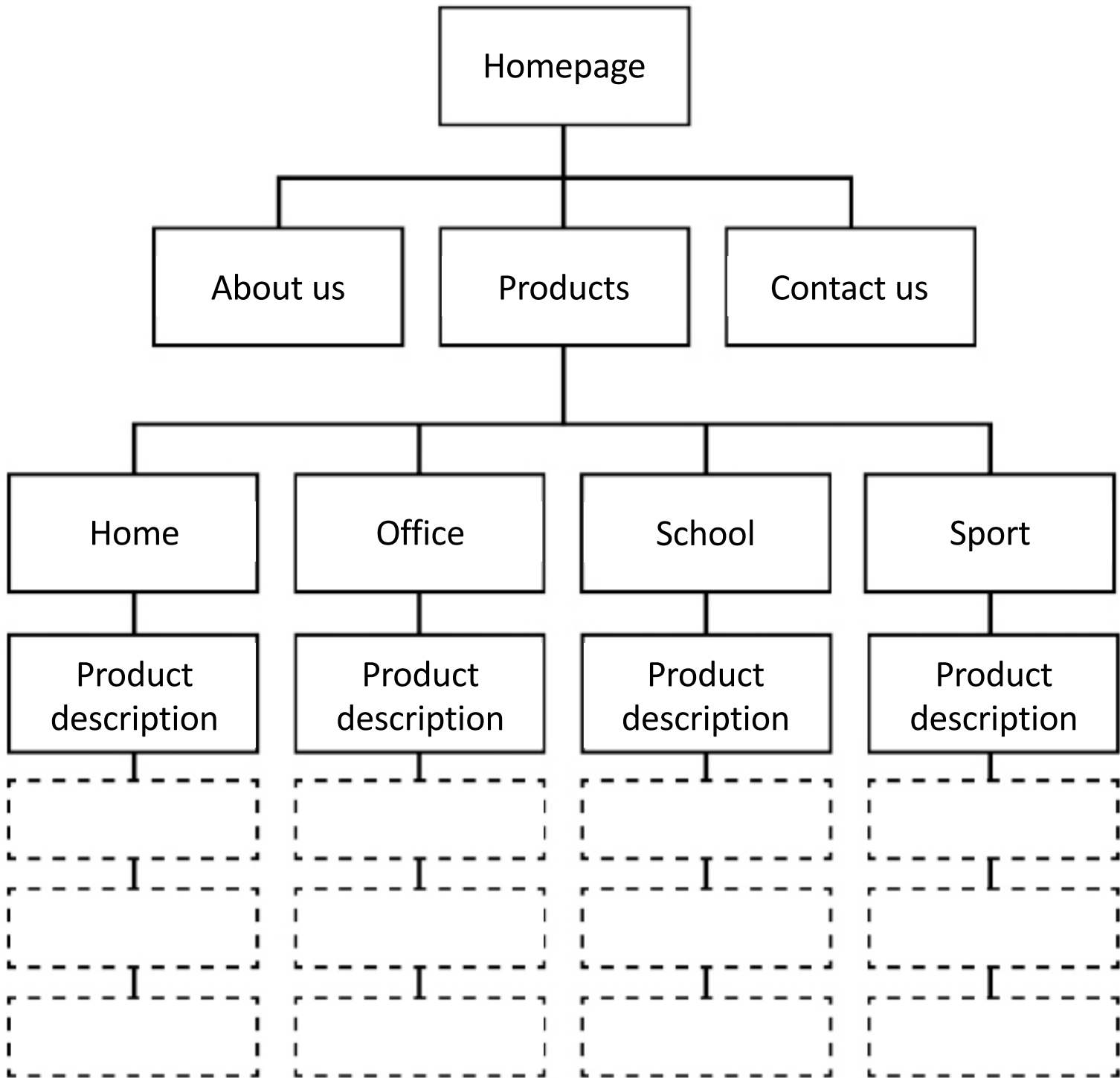
Lecture 5

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Academic Year 2024-2025





Sitemap vs user-flow

- User-flows describe the possible navigation actions a user can take within the website/app
- The sitemap outlines all the navigable parts of the website/app for the user
- While user-flows indicate all possible actions, the sitemap provides the overall framework within which these actions take place

Sitemap vs user flow

- Where should you start when designing a website's content? With the sitemap or the user-flows?
- It depends on the purpose of the website:
 - A highly interactive site (e.g., an airline website), where users need to perform a wide range of actions, is best designed starting with user flows, which then shape the information architecture (IA).
 - A low-interactivity site (e.g., a cultural foundation's presentation site) should prioritize the hierarchy of information to be presented through the IA first and then consider user flows for the limited actions users will be able to perform.

The card sorting technique

- It is a widely used technique to organize the hierarchy of the information architecture (IA) with the help of potential users.
 - A series of notes is prepared, each containing an element to be organized within the IA
 - The notes are given to a target user, who is asked to group them into categories
 - New blank notes are provided—one for each category created by the user—where they are asked to name the identified category



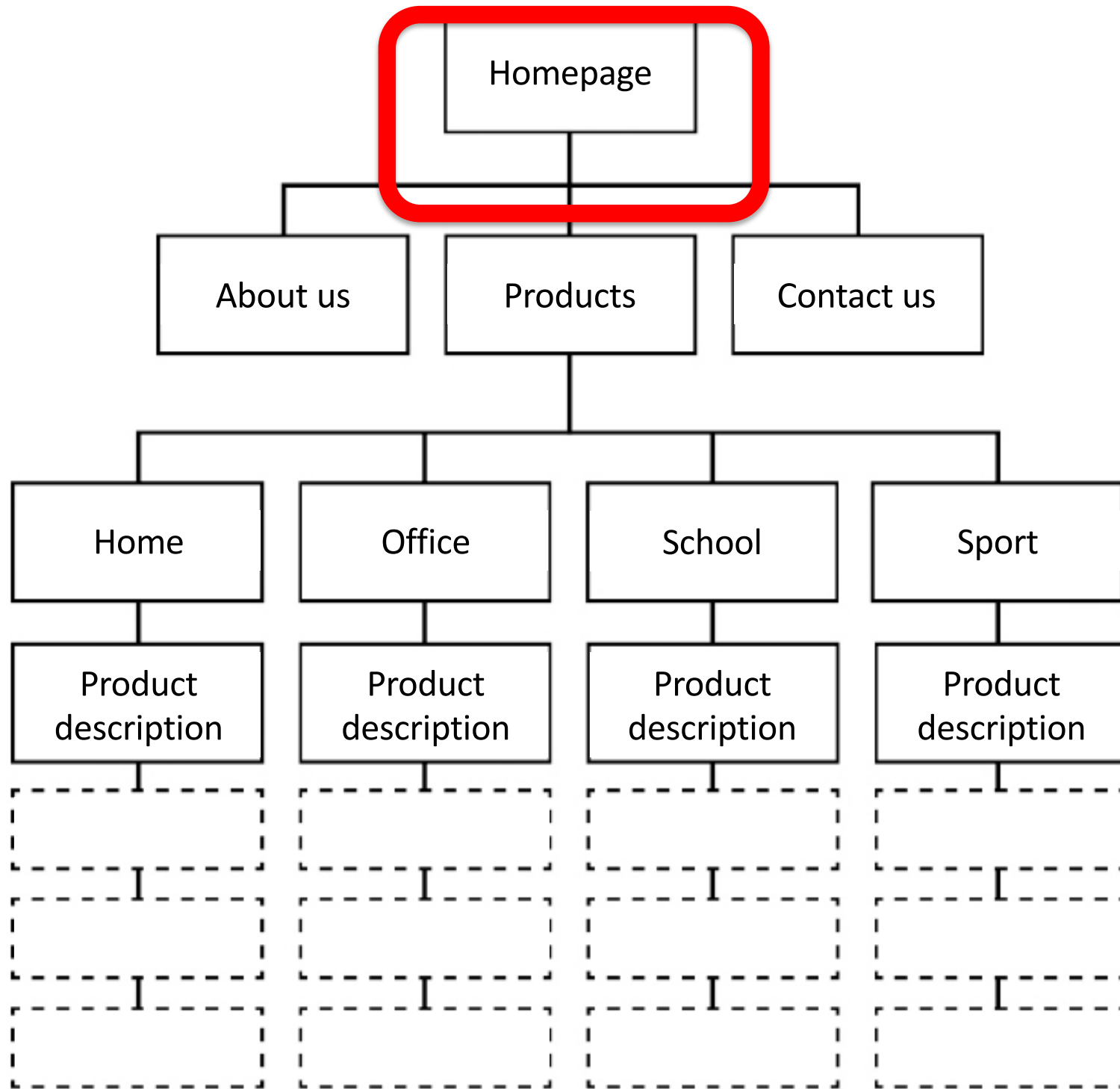


Open vs closed card sorting

- **Open Card Sorting:** Participants are asked to organize content into groups and assign names to those groups. This technique is useful when the site's sections have not yet been defined.
- **Closed Card Sorting:** Participants are asked to organize content according to a predefined category structure. This method is useful for validating an existing sitemap.

Card sorting: good practice

- **Limit content:** The optimal number of cards is between 30 and 40, with a maximum of 50.
- **Shuffle the cards:** Each user should receive the cards in a different order.
- **Set a time limit:** Users should be aware of a time constraint to pace themselves.
- **Think out loud:** Encourage participants to verbalize their thought process to understand how they classify content.
- **Start with open, then closed:** Begin with an open process to get an initial idea of the categories, then use a closed process to validate the information architecture (IA) once it is established.

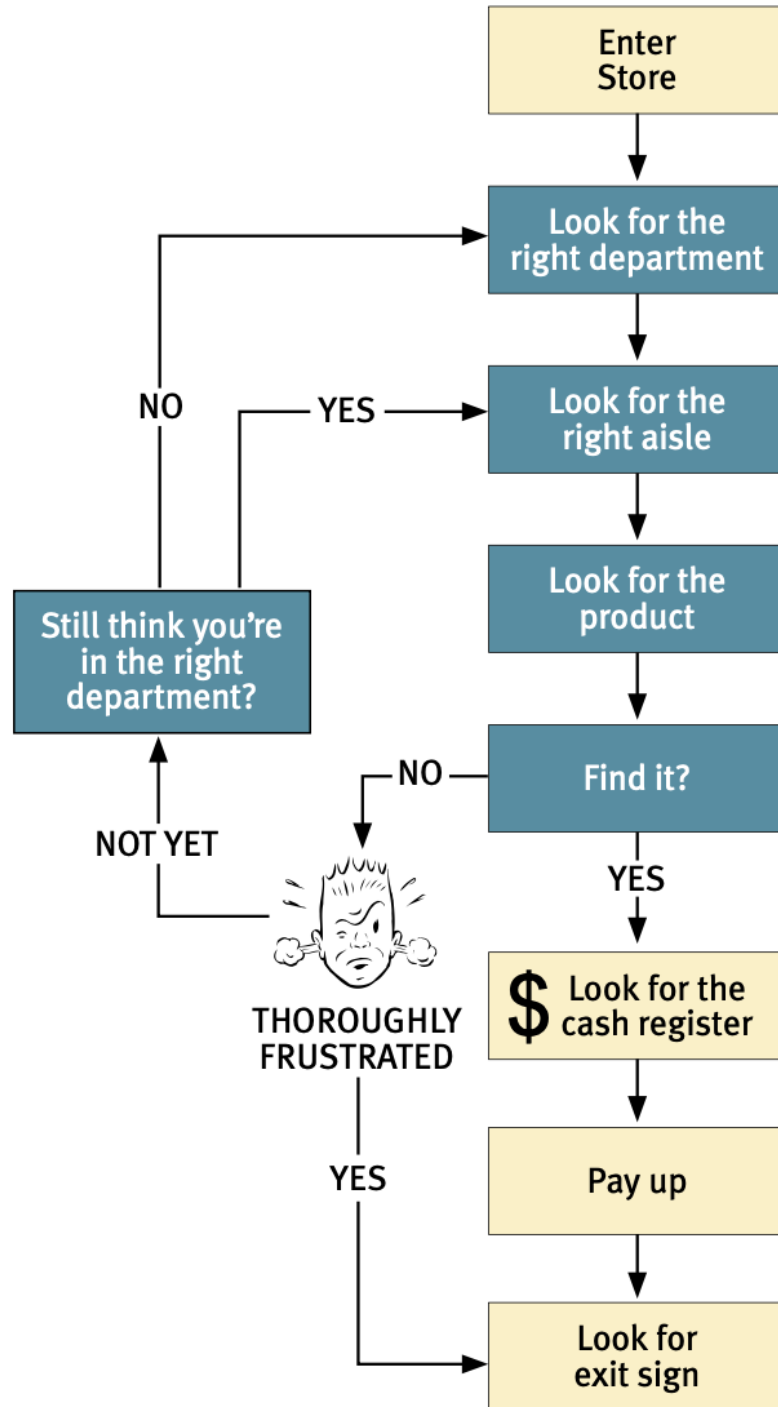


Navigation

- Navigation refers to the process by which a user explores the content of a website or app to find what they are looking for (e.g., a product or service).
- Users who cannot find what they need will abandon the site (or app) and are unlikely to return in the future.
- Good navigation is essential for the success of a website (or app).

An example from the real world

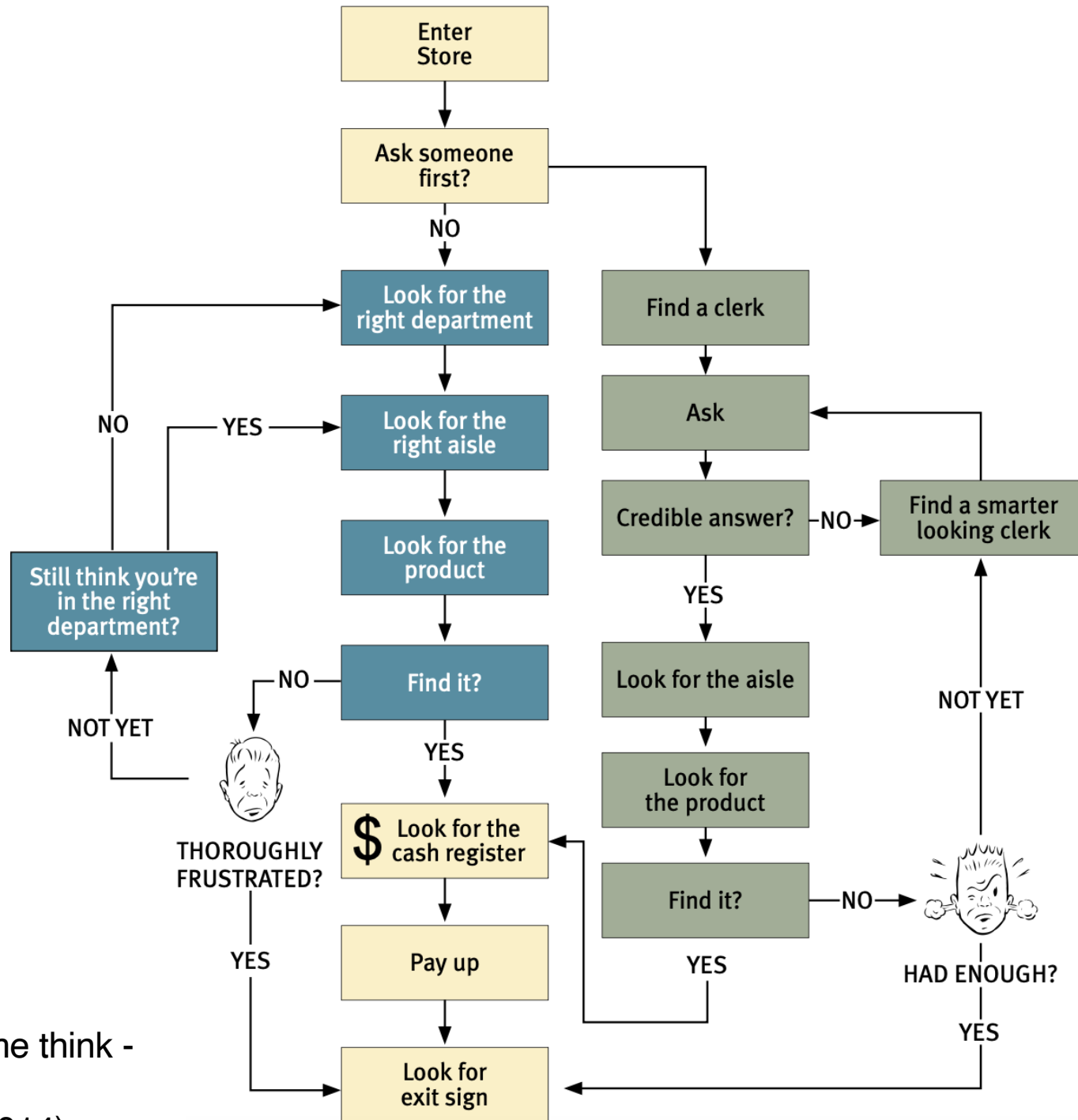
- Searching for a product inside a store organized by departments and aisles.



From
 “Don’t make me think -
 Revisited”
 by S. Krug (2014)

A more complete example

- Let's also consider the option of asking a store employee for assistance.



From
 “Don’t make me think -
 Revisited”
 by S. Krug (2014)

Web navigation

- There are many similarities between the previous example and user navigation on the web:
 - Typically, a user visits a website to look for something specific.
 - The user can choose between browsing through the available products and services or using the search function to find what they need directly.

User categories

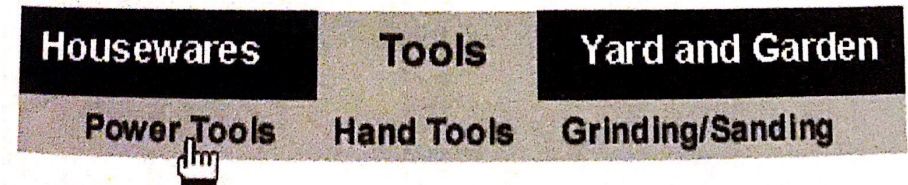
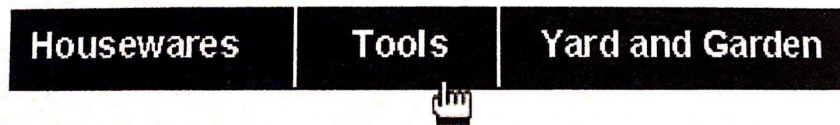
Depending on their choices between exploration and search execution, users can be classified into:

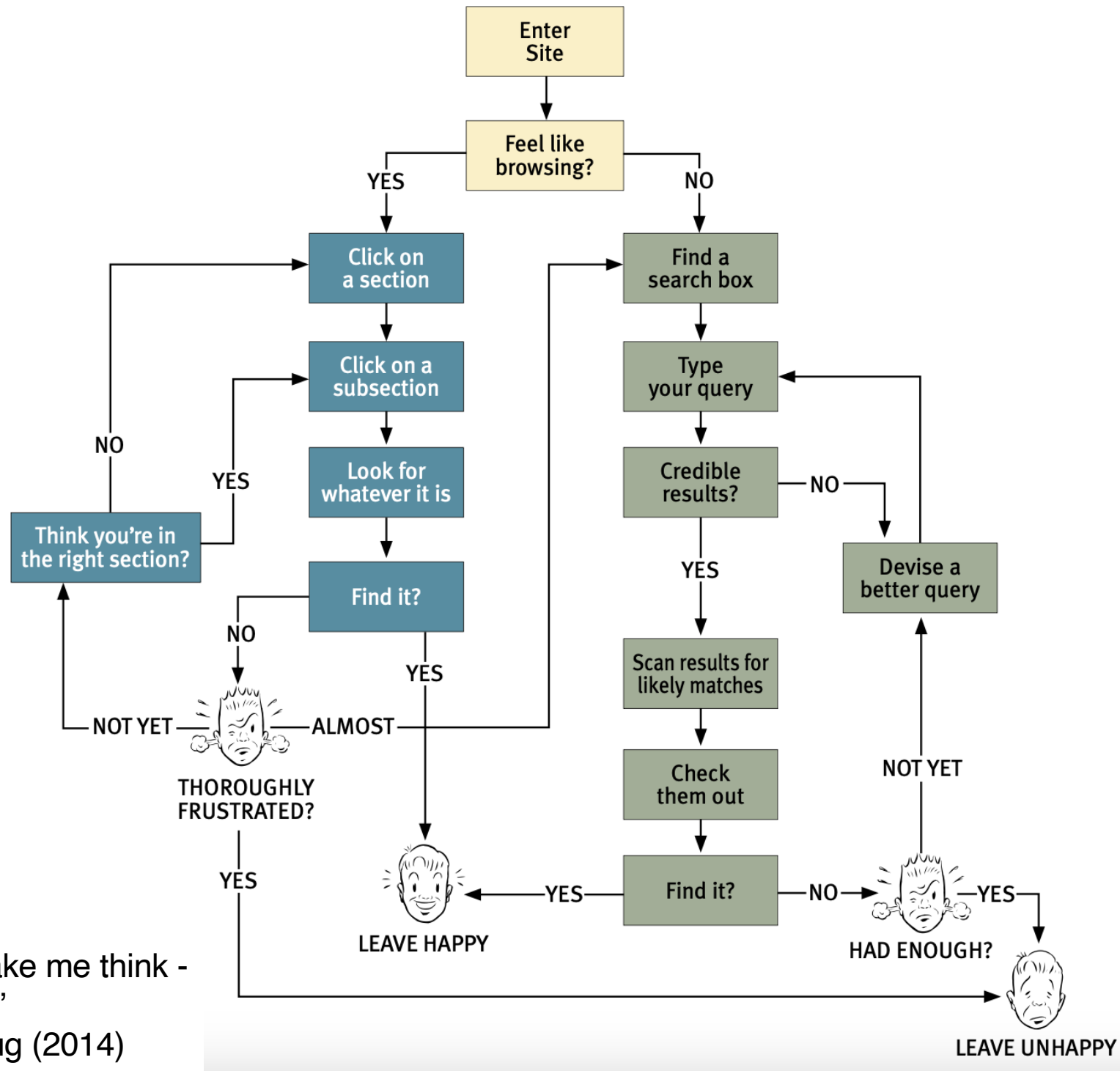
- **Search-dominant users:** They immediately look for a search bar upon entering the site.
- **Link-dominant users:** They start by exploring the site through available links and only use the search function if they run out of links to click or become highly frustrated.
- **Other users:** They switch between searching and exploring links based on their mood, urgency, or the site's navigation system.

Typical link exploration

Typically, the homepage features a list of the site's main sections.

- The user will click on the link that seems most relevant.
- Subsections will then appear, from which the user must choose the most appropriate one.
- Eventually, a list of products matching the user's search should be displayed.
- If the user cannot find what they are looking for, they will leave the site.





From
 “Don’t make me think -
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 by S. Krug (2014)

The typical characteristics missing from web navigation

Despite numerous similarities with the exploration of a physical store, web navigation has the following absences:

- **No sense of proportions:** Are we visiting 3 pages or 3,000 pages? Have we seen everything that interests us, or do we need to keep exploring?
- **No sense of direction:** We are not in a physical space, so there is no concept of left and right, or up and down. We can only move up and down the content hierarchy, if there is one.
- **No sense of position:** Since we are not in a physical space, we don't have a way to accumulate spatial information to better orient ourselves the next time we explore it.

Due to all these shortcomings, the following elements play a particularly important role in navigation:

- **Bookmarks**, which allow us to instantly access pages of interest that we have previously visited.
- **The back button**, which lets us step back and return to the previous page to correct a mistake or reorient our navigation path.
- **The homepage**, which, as the starting point of any navigation, becomes a reference point we can always return to.

The purposes of Web navigation

Web navigation compensates for the lack of a physical space by organizing the virtual space of a website's elements.

Therefore, navigation is much more than a functionality of a site: it is an integral and essential part of the site itself.

- Navigation helps users find what they are looking for.
- Navigation helps users understand where they are within the site.
- Navigation reveals the site's content to users, presenting it in a hierarchy.
- Navigation shows users how to use the site, indicating the starting point and available options.
- Finally, well-designed navigation increases users' trust in the site.

The conventions of web navigation



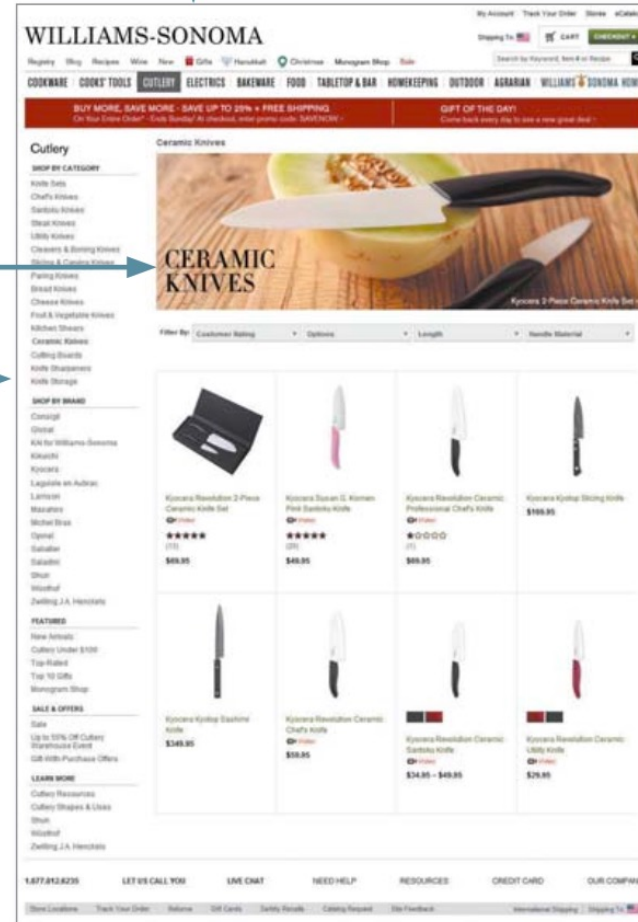
"You are here" indicator

Page name

CERAMIC KNIVES

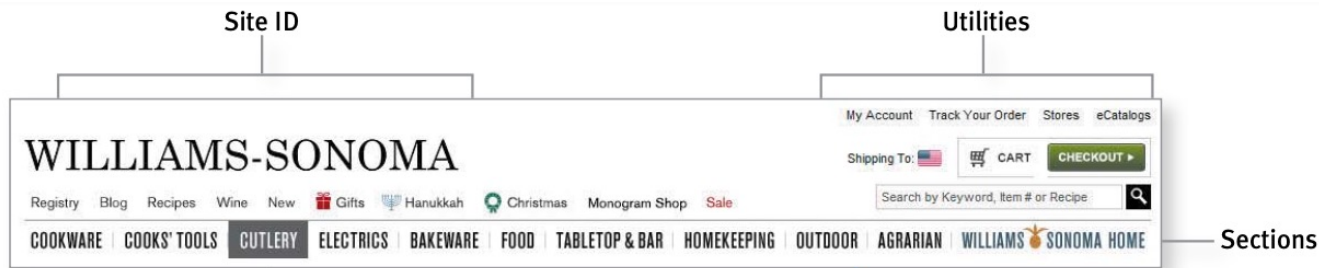
Local navigation (Things at the current level)

- Cutlery
- SHOP BY CATEGORY
- Knife Sets
- Chef's Knives
- Santoku Knives
- Steak Knives
- Utility Knives
- Cleavers & Boning Knives
- Slicing & Carving Knives
- Paring Knives
- Bread Knives
- Cheese Knives
- Fruit & Vegetable Knives
- Kitchen Shears
- Ceramic Knives
- Cutting Boards
- Knife Sharpeners
- Knife Storage



Footer navigation

- 1.877.812.6235
- LET US CALL YOU
- LIVE CHAT
- NEED HELP
- RESOURCES
- CREDIT CARD
- OUR COMPANY

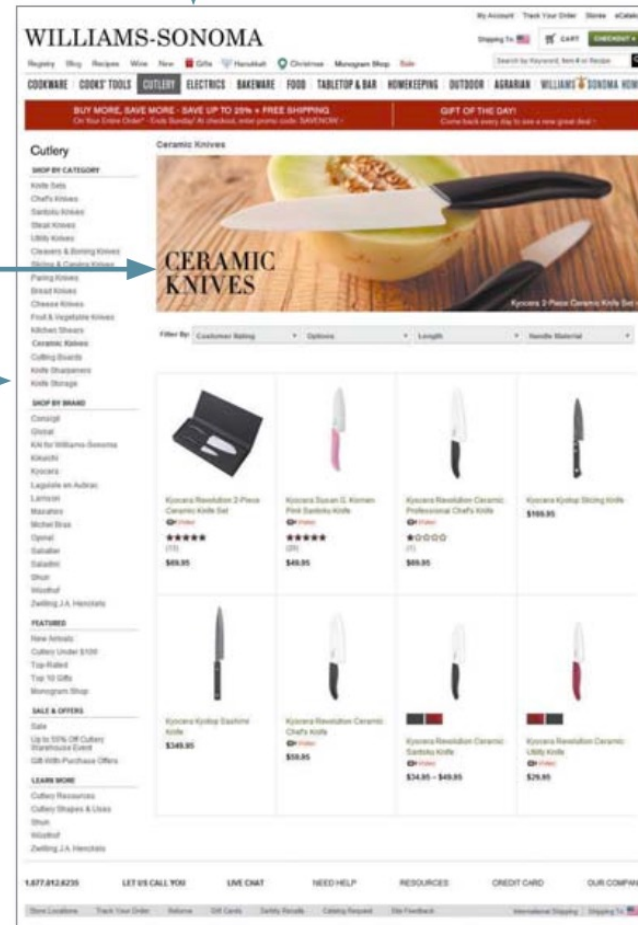


"You are here" indicator

Page name
CERAMIC KNIVES

Local navigation
 (Things at the current level)

- Cutlery**
- SHOP BY CATEGORY
- Knife Sets
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- Knife Storage



Footer navigation

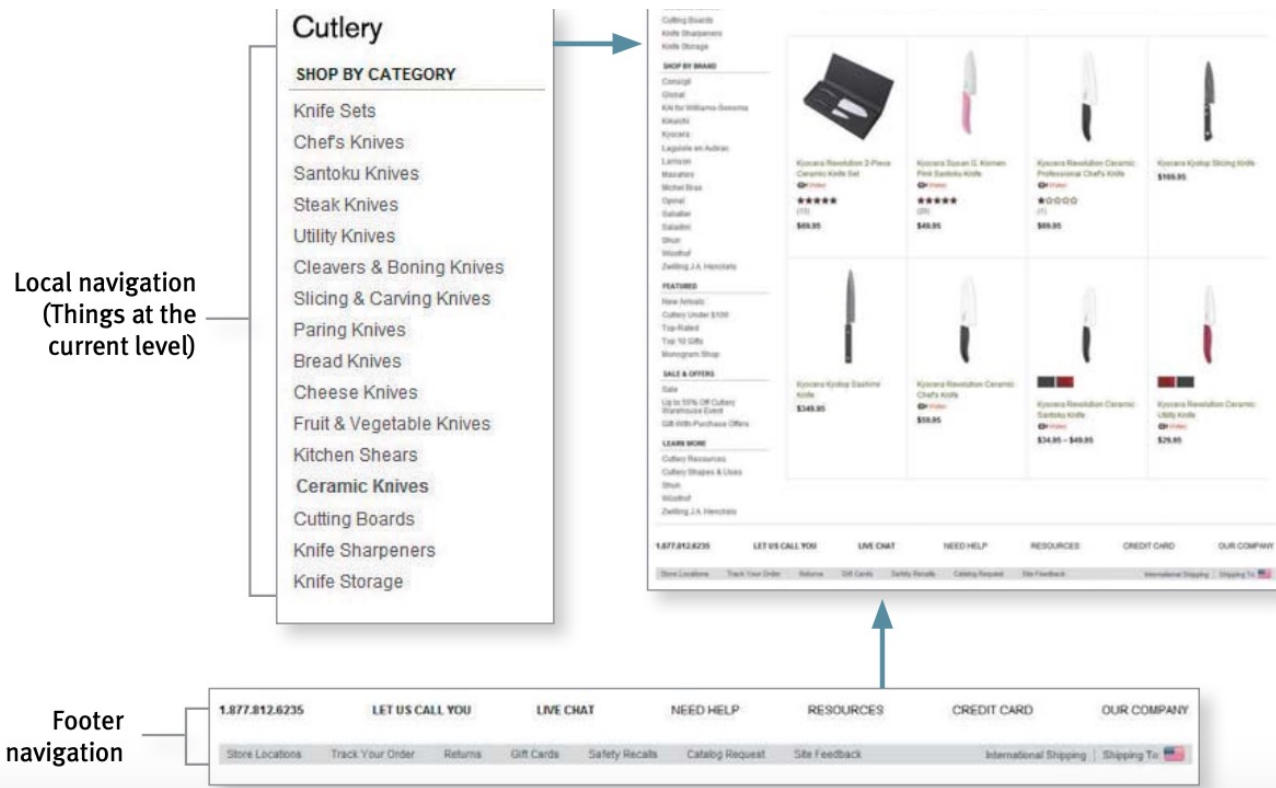
1.877.812.6235 LET US CALL YOU LIVE CHAT NEED HELP RESOURCES CREDIT CARD OUR COMPANY

Store Locations Track Your Order Returns Gift Cards Safety Recalls Catalog Request Site Feedback International Shipping Shipping To: [US]

From
 "Don't make me think - Revisited"
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Header navigation



Site ID

Utilities

The screenshot shows the top navigation bar of the Williams-Sonoma website. On the left, the brand name "WILLIAMS-SONOMA" is displayed in a large, serif font. Below it is a horizontal menu with links for "Registry", "Blog", "Recipes", "Wine", "New", "Gifts", "Hanukkah", "Christmas", "Monogram Shop", and "Sale". A search bar is located to the right of the menu, with the placeholder text "Search by Keyword, Item # or Recipe". In the top right corner, there are utility links: "My Account", "Track Your Order", "Stores", and "eCatalogs". Below these are a shipping location selector (currently set to the United States), a shopping cart icon labeled "CART", and a green "CHECKOUT" button. A horizontal category bar is positioned below the search bar, with items: "COOKWARE", "COOKS' TOOLS", "CUTLERY", "ELECTRICS", "BAKEWARE", "FOOD", "TABLETOP & BAR", "HOMEKEEPING", "OUTDOOR", "AGRARIAN", and "WILLIAMS SONOMA HOME". The "CUTLERY" link is highlighted with a dark background and white text. A vertical line from the "Site ID" label points to the top left of the header. A vertical line from the "Utilities" label points to the top right. A horizontal line from the "Sections" label points to the category bar.

Sections

"You are here"
indicator

This is a partial screenshot of the Williams-Sonoma website header, showing only the right side. It includes the "WILLIAMS-SONOMA" logo, the utility links "My Account", "Track Your Order", "Stores", and "eCatalogs", the shipping location selector, the "CART" icon, and the "CHECKOUT" button. A blue arrow points from the "CUTLERY" link in the top screenshot to this partial view.

Persistent navigation

- These elements are persistent parts of navigation:
 - The site ID
 - Utilities (including search)
 - Sections
 - The "you are here" indicator
- that is, they should be present on every page of the site (except for pages containing forms to fill out, where only the site ID and utilities useful for filling out the form are necessary).

Site ID

Utilities

My Account Track Your Order Stores eCatalogs

Shipping To: CART **CHECKOUT >**

Registry Blog Recipes Wine New Gifts Hanukkah Christmas Monogram Shop **Sale**

Search by Keyword, Item # or Recipe

COOKWARE | COOKS' TOOLS | CUTLERY | ELECTRICS | BAKEWARE | FOOD | TABLETOP & BAR | HOMEKEEPING | OUTDOOR | AGRARIAN | WILLIAMS SONOMA HOME

Sections

"You are here"
indicator

WILLIAMS-SONOMA

My Account Track Your Order Stores eCatalogs

Shipping To: CART **CHECKOUT >**

Site ID

- The identity and logo of a website are like the sign that displays the name of a building.
- The difference is that once we enter a physical building, we know where we are, while on a website, where one can click from one page to another or even from one site to another, the user always needs to see the site ID.
- Therefore, the site ID must be present on every page.

Position of the site ID

- In websites written in a language that reads from left to right, the most natural position for the site ID is in the top left corner.
- Since the site ID represents the entire site, it is the element that is highest in the site's logical hierarchy.

the site

- the site's sections
 - subsections
 - » subsections
 - a page
 - areas of the page
 - elements of the page

The site ID as a link

- Another very common use of the site ID in the top left corner is to make it a link that takes users back to the homepage.
- The site ID then acts as a safety anchor, allowing users to always return to the starting point if they get lost or if the process doesn't go as planned and requires a reset.
- Krug suggests, in addition to using the ID as a link, to add “Home” to the list of sections, ensuring that users are aware of this option to return to the homepage.

Site ID

Utilities

WILLIAMS-SONOMA

Registry Blog Recipes Wine New Gifts Hanukkah Christmas Monogram Shop Sale

COOKWARE | COOKS' TOOLS | **CUTLERY** | ELECTRICS | BAKEWARE | FOOD | TABLETOP & BAR | HOMEKEEPING | OUTDOOR | AGRARIAN | WILLIAMS SONOMA

My Account Track Your Order Stores eCatalogs

Shipping To: [US Flag] [CART] [CHECKOUT >]

Search by Keyword, Item # or Recipe

Sections

The screenshot shows the top navigation bar of the Williams-Sonoma website. The main navigation menu includes categories like COOKWARE, COOKS' TOOLS, CUTLERY (highlighted), ELECTRICS, BAKEWARE, FOOD, TABLETOP & BAR, HOMEKEEPING, OUTDOOR, AGRARIAN, and WILLIAMS SONOMA. Utility links for My Account, Track Your Order, Stores, and eCatalogs are in the top right. A search bar and a cart with a checkout button are also present. A red box highlights the word 'Sections' on the right side of the navigation bar.

“You are here”
indicator

WILLIAMS-SONOMA

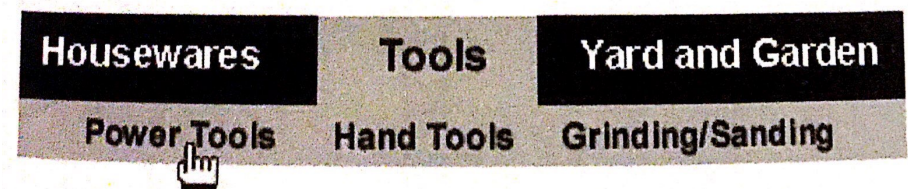
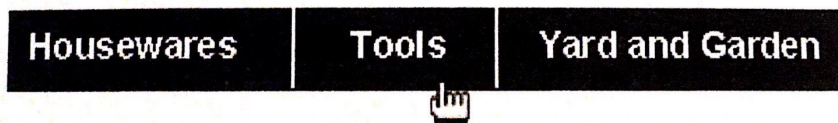
My Account Track Your Order Stores eCatalogs

Shipping To: [US Flag] [CART] [CHECKOUT >]

This block shows a partial view of the website header, including the Williams-Sonoma logo and utility links.

Sections

- Sections are the links that lead to the main sections of the site, representing the highest level of the site's hierarchy.
- Sections are sometimes referred to as primary navigation, in contrast to subsections, which make up the secondary navigation.
- Often, while navigating through the primary sections, the user is given the option to view the secondary sections with a dynamic graphical solution, where the subsections belonging to the currently selected section appear.





Utilities

- Utilities are links that lead to important elements of the site but are not part of the site's content hierarchy.
- These are elements that can help the user navigate the site (registration, login, help, site map, shopping cart, search, etc.) or provide information about who manages the site (about us, contact us, etc.).
- Typically, utilities are presented with slightly less prominence than the sections (an exception being fundamental utilities, such as the shopping cart and search on an e-commerce site).

Site ID

Utilities

The screenshot shows the top navigation bar of the Williams-Sonoma website. The main logo 'WILLIAMS-SONOMA' is on the left. To the right, there are utility links: 'My Account', 'Track Your Order', 'Stores', and 'eCatalogs'. Below these are 'Shipping To: [US Flag]', a 'CART' icon with a shopping cart, and a 'CHECKOUT' button. A search bar contains the text 'Search by Keyword, Item # or Recipe'. A horizontal menu lists product categories: 'COOKWARE', 'COOKS' TOOLS', 'CUTLERY' (highlighted with a dark background), 'ELECTRICS', 'BAKEWARE', 'FOOD', 'TABLETOP & BAR', 'HOMEKEEPING', 'OUTDOOR', 'AGRARIAN', and 'WILLIAMS SONOMA HOME'. A red box highlights the 'CUTLERY' category, and a blue arrow points from it to a smaller version of the header below.

Sections

**“You are here”
indicator**

A smaller, simplified version of the website header, showing the 'WILLIAMS-SONOMA' logo and utility links like 'My Account', 'Track Your Order', 'Stores', 'eCatalogs', 'Shipping To: [US Flag]', 'CART', and 'CHECKOUT'.

“You are here”

- Web navigation can counteract the lack of orientation in a physical space by indicating where a user is within the site’s hierarchy.
- This can be achieved by highlighting the current position in the navigation bar, lists, or menus that appear within the page.

Example of “You are here”



Looks like I'm in
bedroom lighting

From “Don't make me think - Revisited” by S. Krug

Where is the “You are here”?

- There are several graphical techniques to show where it is:
 - a pointer next to it ➤
 - changing the **text's color**
 - using a **bold typeface**
 - inverting the color of a **button**
 - changing the color of a **button**

The problem of perceptibility

Sports

Business

Entertainment

Politics

- Often UI designers choose thin fonts for a more refined aesthetic, at the expense of visibility and the distinction of the “You are here” indicator.

Breadcrumbs

- They are a richer version of the “You are here” indicator, because they not only show where the user is, but also the entire path, starting from the homepage, that led them there.
- The advantage of breadcrumbs is that they give the user the ability to return to any previous page along the path.

Example of breadcrumbs

Best Buy > TV & Home Theater > TV Stands, Mounts & Storage > TV Stands > 40" - 49"



From "Don't make me think - Revisited" by S. Krug

Advice for implementation

- **Place them at the top:**
From the experience of many usability tests, it seems that breadcrumbs work better when placed at the top of the page.
- **Use “>” between different levels:**
It serves as a separator that also suggests the flow of the path that led to the current position.
- **Apply bold to the last element:**
This is a way to highlight the page the user is on. Since the user is already there, the last element is also the only one in the breadcrumbs that is not a link.

Page names

The image shows a screenshot of the Williams-Sonoma website with several navigation elements highlighted and labeled:

- Page name:** A red box highlights the 'CERAMIC KNIVES' header on the product page. An arrow points from this box to the 'CERAMIC KNIVES' text in the 'SHOP BY CATEGORY' menu.
- Local navigation (Things at the current level):** A box highlights the 'CERAMIC KNIVES' item in the 'SHOP BY CATEGORY' menu. An arrow points from this box to the 'Ceramic Knives' product listing in the main product grid.
- Footer navigation:** A box highlights the footer navigation bar, which includes links like '1.877.812.8235', 'LET US CALL YOU', 'LIVE CHAT', 'NEED HELP', 'RESOURCES', 'CREDIT CARD', and 'OUR COMPANY'. An arrow points from this box to the 'RESOURCES' link in the footer.

The main product page for 'Ceramic Knives' displays a grid of products, including 'Kyonara Revolution 2-Phase Ceramic Knife Set', 'Kyonara Slicer II Ceramic Pink Santoku Knife', 'Kyonara Revolution Ceramic Professional Chef's Knife', and 'Kyonara Kiting Slicing Knife'.

Rules for page names

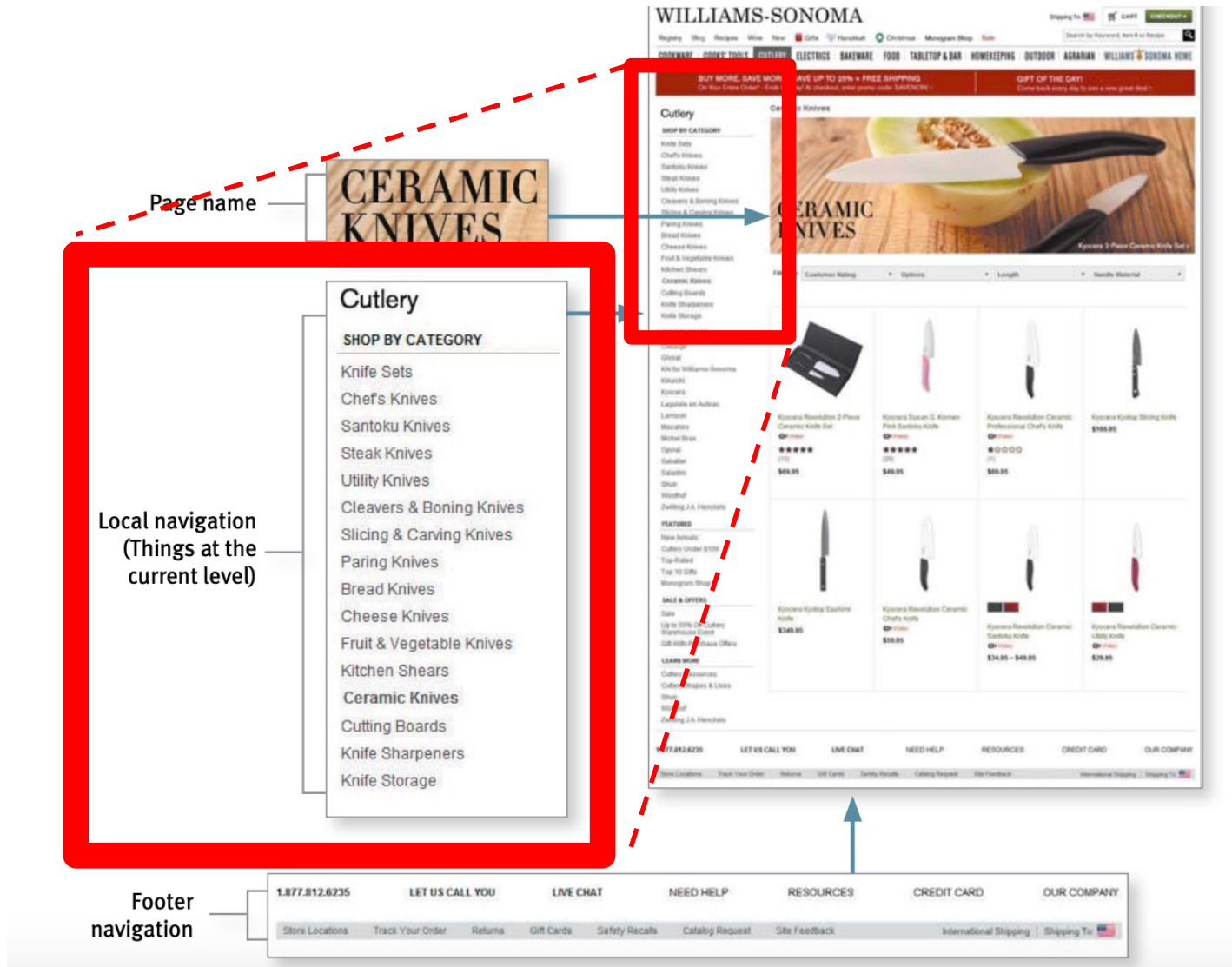
- **Every page must have a name.**
Some UI designers, with a minimalist approach, consider the page name in the navigation sufficient, but it is always better to include the page name within the page itself.
- **The name must be in the right place.**
The name should encapsulate the content of the page, so its position is at the top, possibly with a frame surrounding the content.
- **The name must be clearly visible**, using color, font type, and size, typically the largest on the page.
- **The name should match the word** the user clicked on to arrive at the page. A mismatch creates confusion and distrust.

Descending scale of trust

- If a user clicks on [Gifts for Ladies](#) and arrives at a page with these titles, their trust will be...

Gifts for Ladies	Maximum trust
Gifts for her	High trust
Perfumes	Low trust
Error 404	No trust

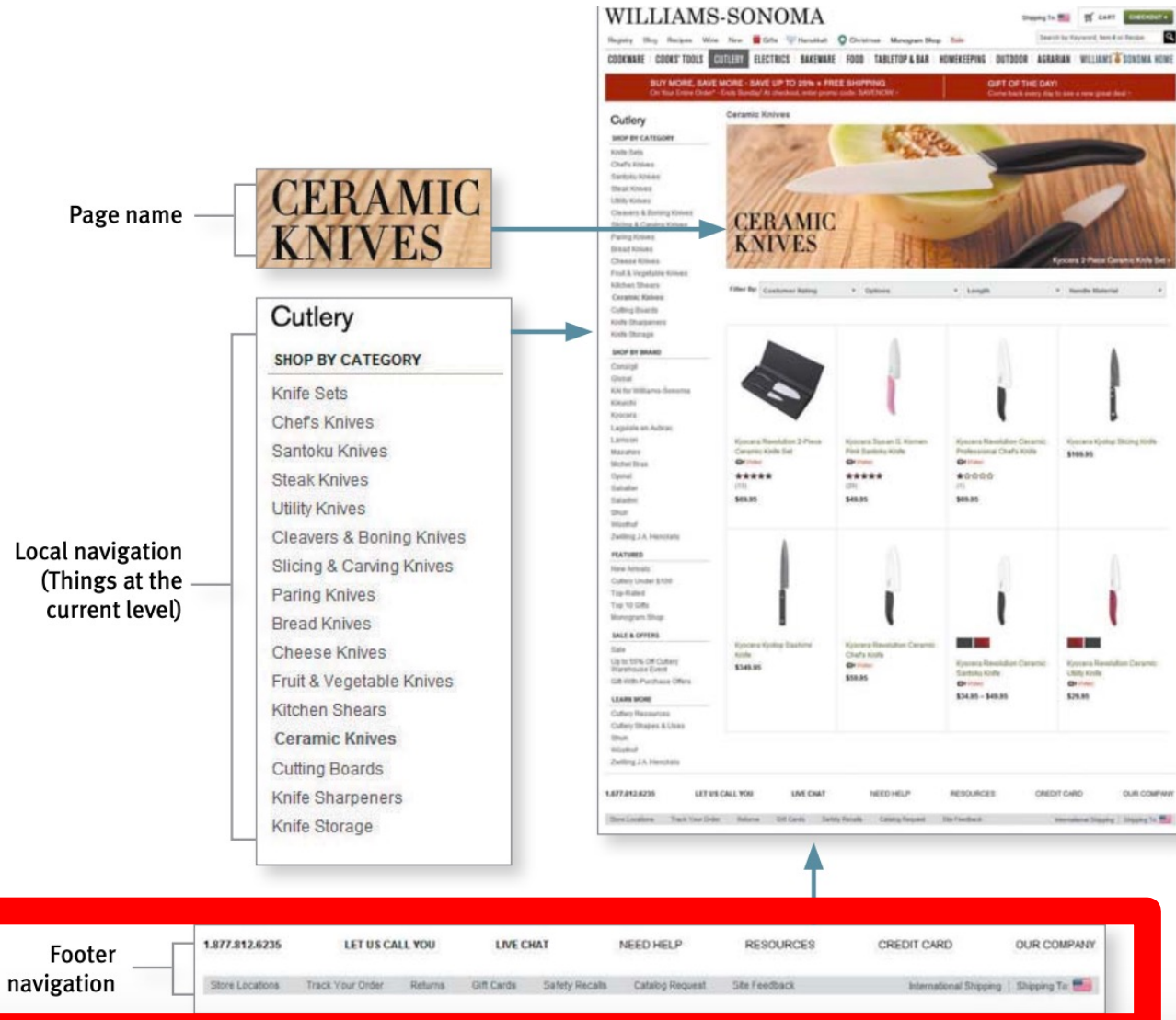
Local navigation



Local navigation

- Local navigation refers to all the content on the site that is at the same level as the currently visited page.
- We could think of it as a horizontal movement of the user between pages that are at the same level.
- The visited page, within the local navigation menu, should be highlighted (with a pointer, bold text, different color, etc.).

Footer navigation



Footer navigation

- The very last part of the navigation, both in terms of position and importance, is the footer.
- Typically, the footer will contain links to utilities that are less frequently used by users.