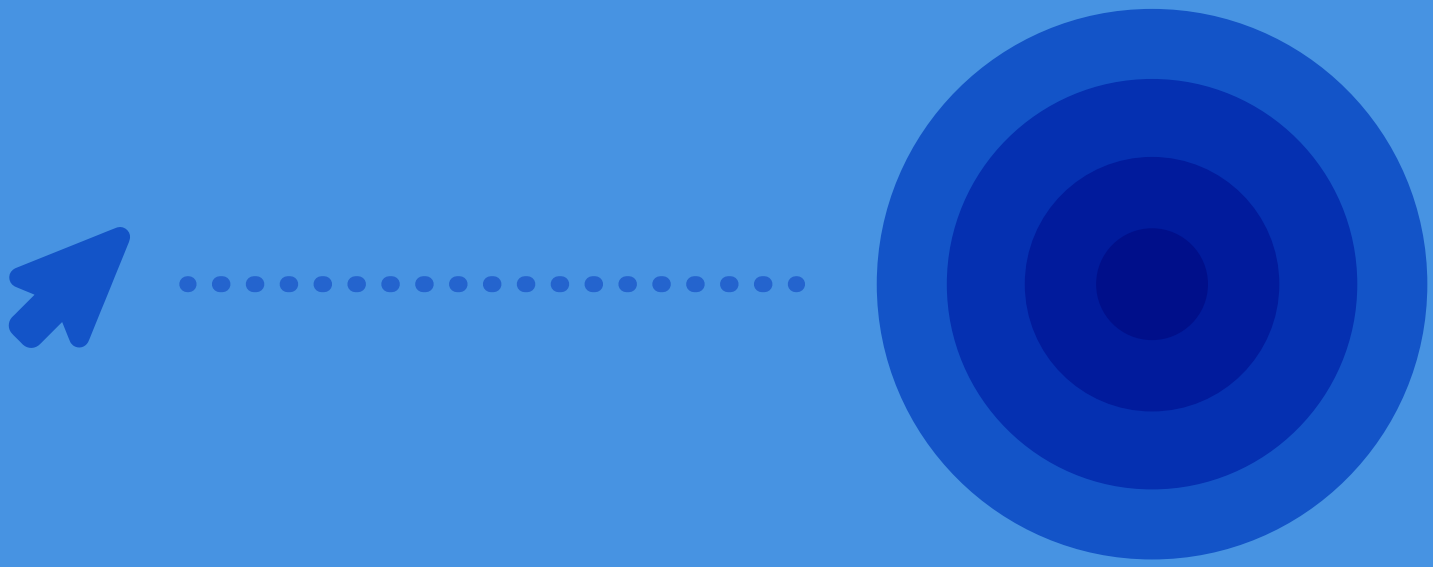
# 10 Laws of Credit Union Website Design

by bloom CU



# Fitts' Law

The time to acquire a target is a function of the distance to and size of the target.

## OVERVIEW

In 1954, psychologist Paul Fitts showed that the time required to move to a target depends on the distance to it, yet relates inversely to its size.* By his law, fast movements and small targets result in greater error rates, due to the speed-accuracy trade-off. Fitts' law influenced the convention of making interactive buttons large because smaller buttons are more difficult and time-consuming to click. Likewise, the distance between a user's pointer and interactive elements should be kept as short as possible (e.g., right-click pop-up menus and short drop-downs reduce travel time and thereby improve ease-of-use).

## TAKEAWAYS

- If you want something to be tapped or clicked, make it big.
- For mobile, place interactive elements near the bottom of screens where thumbs can easily reach them.
- For desktop, position newly revealed interactive elements near the last element the user interacted with.

**SOURCE**

* Interaction-Design.org, Fitts' Law

# Hick's Law

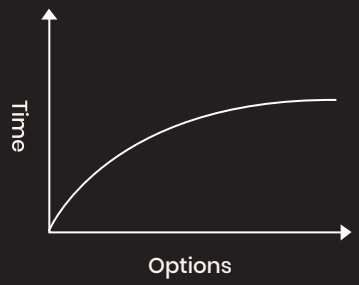
Increasing the number of options increases the time needed to make a decision, but categorizing can dampen the effect.

## OVERVIEW

Hick's Law explains how the number of possible choices impacts the time it takes for a person to make a decision. Increasing the number of uncategorized choices increases decision time linearly, while categorizing choices causes the time needed to make decisions to show a logarithmic pattern. Hick's Law has a logarithmic form because people subdivide the total collection of choices into categories, eliminating about half of the remaining choices at each step, rather than considering each and every choice one-by-one, which would require linear time.* Hence, as the number of choices increases, categorizing options improves user experience.

## TAKEAWAYS

- Fewer options leads to faster decisions.
- As options increase, categorizing decreases decision time.




**SOURCE**

* Wikipedia.org, Hick's law

# Jakob's Law

Users spend most of their time on other sites.* Therefore, users prefer your website to work the same as others.

## OVERVIEW

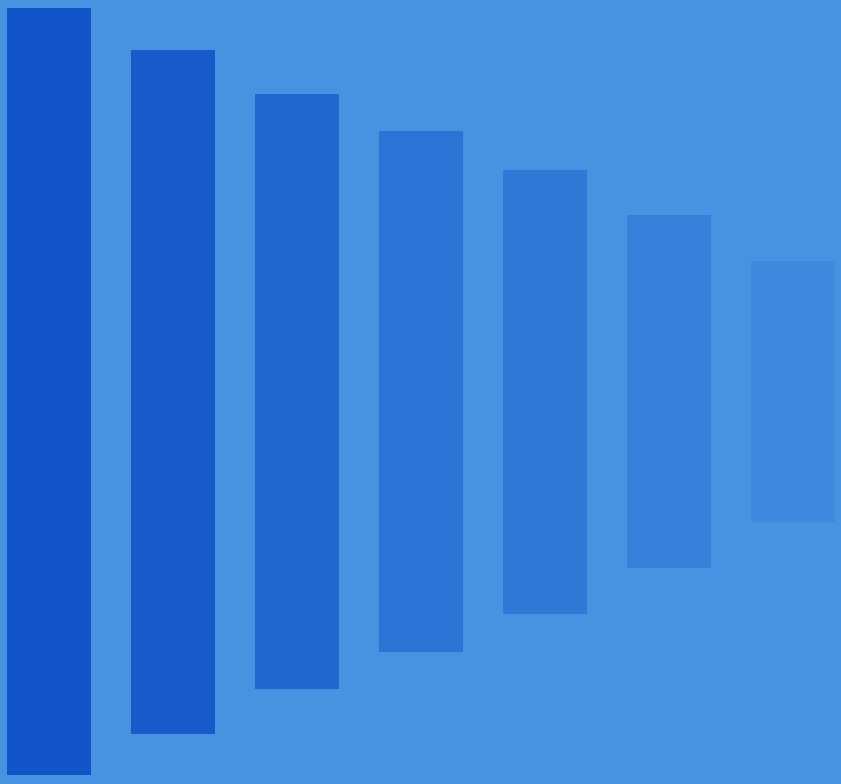
Jakob Nielsen, Ph.D. and principal of the Nielsen Norman Group, coined the term Jakob's Law. He says, "Consistency is one of the most powerful usability principles: when things always behave the same, users don't have to worry about what will happen. Instead, they know what will happen based on earlier experience. ... The more users' expectations prove right, the more they will feel in control of the system and the more they will like it. And the more the system breaks users' expectations, the more they will feel insecure. ... Users form their expectations for your site based on what's commonly done on most other sites. If you deviate, your site will be harder to use and users will leave."

## TAKEAWAYS

Don't reinvent the wheel. Your website should behave as users expect based on their interactions with other sites.

**SOURCE**

* NNGroup.com, Top 10 Mistakes in Web Design



# Miller's Law

The number of objects an average human can hold in working memory is 7 ± 2.*

## OVERVIEW

*The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information* is one of the most highly cited papers in psychology. It was published in 1956 in Psychological Review by the cognitive psychologist George A. Miller of Princeton University's Department of Psychology. It is often interpreted to argue that the number of objects an average human can hold in working memory is 7 ± 2. This is frequently referred to as "Miller's Law."

## TAKEAWAYS

- Simplify. People can remember 7 objects, but that doesn't mean you should max out their memory.
- Chunk content into groups of 7 objects or fewer.
- Lists in your navigation should be 7 items or fewer.

**SOURCE**

* Wikipedia.org, The Magical Number Seven, Plus or Minus Two

# Occam's Razor

Among equally good solutions, choose the one that makes the fewest assumptions.

## OVERVIEW

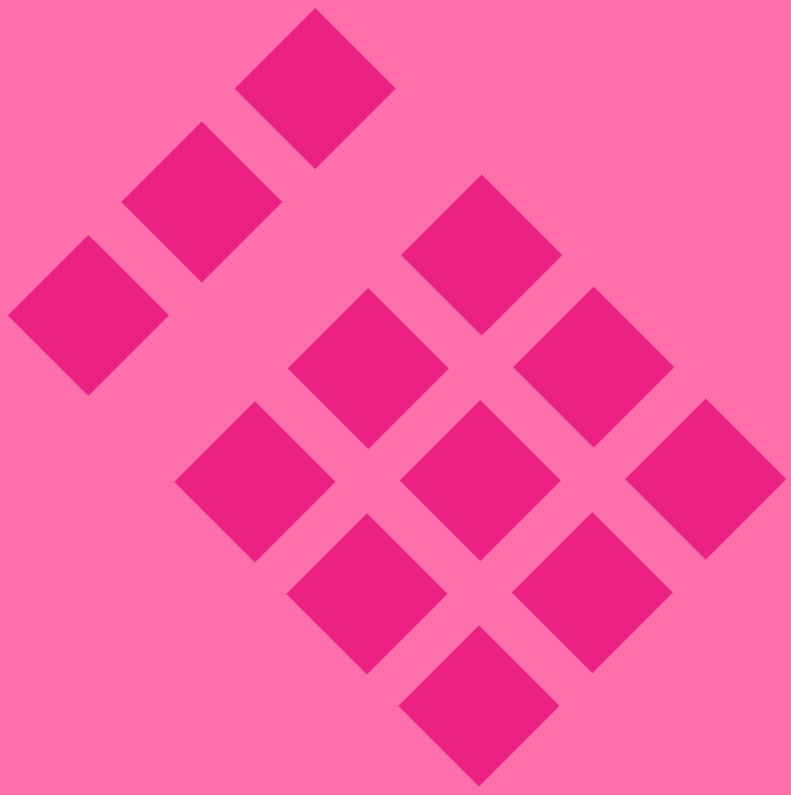
William of Occam was an English friar, scholastic philosopher, and theologian; and his "razor" is a problem-solving principle that reduces the possibility of error. He originally wrote, "Plurality should not be posited without necessity."* Over time, his original definition has been refined and is now more specific: among equally good solutions to a problem, choose the one that makes the fewest assumptions because the more assumptions you make, the greater possibility there is for error. Choosing solutions that make fewer assumptions leads to greater simplicity.

## TAKEAWAYS

- Make as few assumptions as possible.
- Remove unnecessary elements and steps from designs.
- The simplest solution is often the best one.

**SOURCE**

* Britannica.com, Occam's razor



# Law of Proximity

Objects that are near each other appear to form a group.

## OVERVIEW

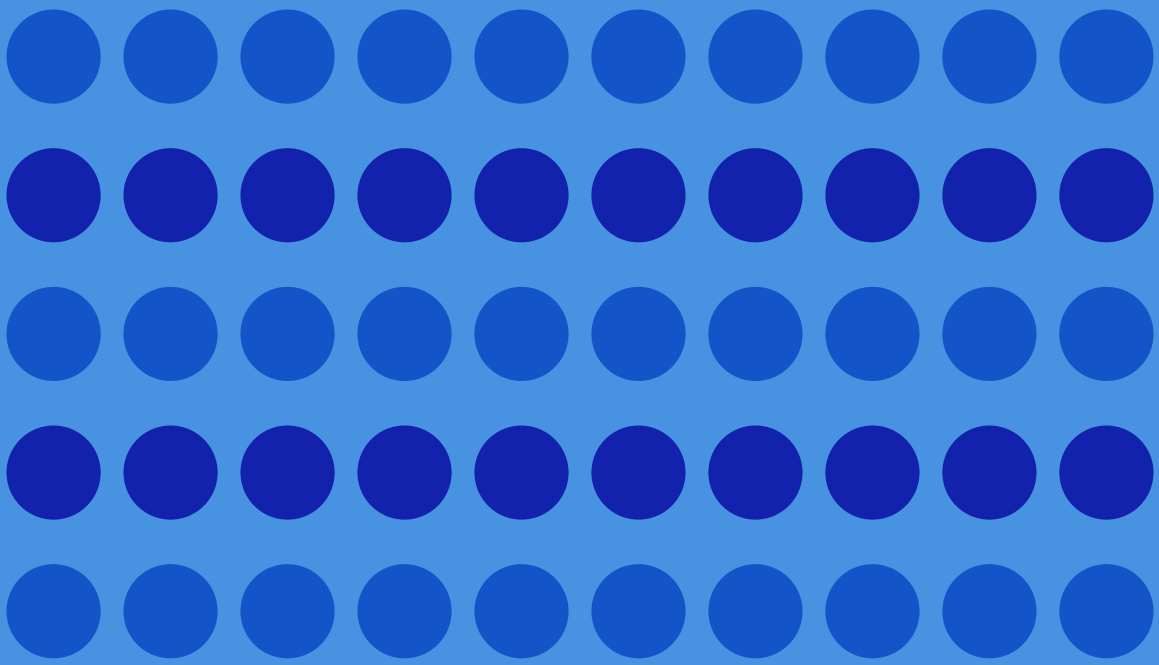
The Law of Proximity is one of several principles of visual grouping that come from Gestalt psychology.* It states that when objects are near each other they appear to be related or form a group, even if shapes and sizes are significantly different.

Designers can utilize the Law of Proximity by placing related elements near each other and separating groups with white space. Writers can also use this law by grouping related ideas into headings, sentences, and paragraphs.

## TAKEAWAYS

- Place related elements near each other
- Use white space to separate unrelated objects

**SOURCE**
*Wikipedia.org, Gestalt psychology



# Law of Similarity

Objects within an assortment that seem similar appear to form a group.

## OVERVIEW

The Law of Similarity is one of several principles of visual grouping that come from Gestalt psychology.* It states that when objects within an assortment are similar in color, shape, size, or some other quality, they appear to be related or form a group. These similarities are used by the human mind to distinguish one group from another that has different qualities. Designers can use this phenomenon to their advantage by making related elements similar in color, shape, or size.

## TAKEAWAYS

- Separate interactive elements (e.g., links, buttons, navigation) from body content by making them different in color, shape, or size
- Use consistent styles across related elements to help users understand that those elements are part of a group

**SOURCE**
*Wikipedia.org, Gestalt psychology

# Law of Closure

Individual elements are perceived as parts of a larger whole

## OVERVIEW

Humans recognize patterns and familiar shapes even if they are incomplete because individual elements are perceived as parts of a larger whole. For example, we perceive the image above as a circle and a square, but really it's just a collection of lines.

The Law of Closure is also common in nature. Our ancestors used their perception of closure to recognize otherwise hidden predators.* Conversely, some animals have color patterns to combat closure: the stripes of tigers and zebras break up their shapes.

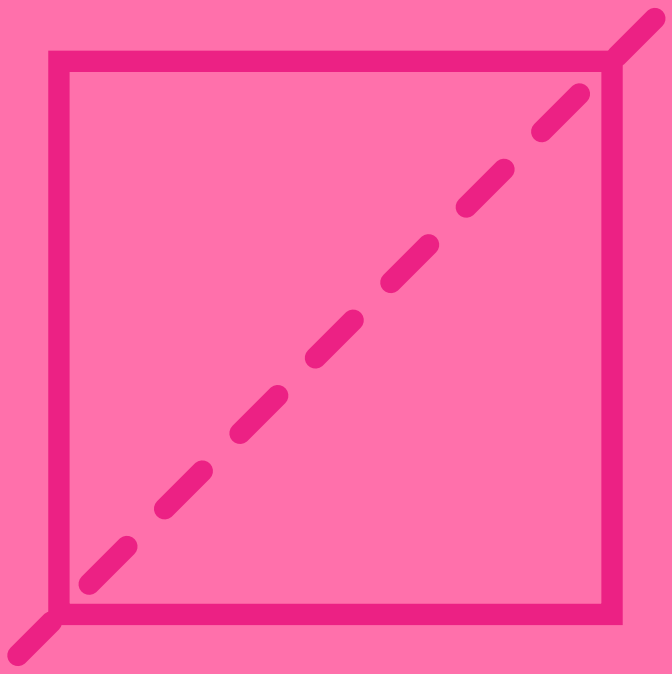
Designers can use the Law of Closure to simplify their designs. By reducing a design to its most basic form, information can be communicated with less complexity. Even simple shapes and icons can convey a lot of meaning and information. For instance, the diamond and polygon shapes to the right appear to form a box.

## TAKEAWAYS

- Reduce a design to its simplest form to reduce complexity
- Use simplified shapes and icons to convey messages and meaning

**SOURCE**

* Wikipedia.org, Principles of grouping, Closure



# Law of Symmetry

The balance of elements within a design impacts its usefulness and aesthetic

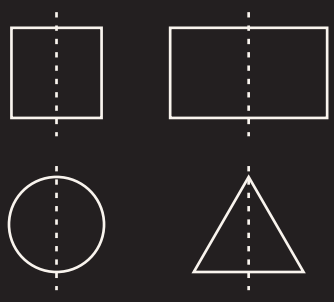
## OVERVIEW

Symmetry is used in all forms of art and studied in all branches of science. It exists all around us: in the device you are using to read this; in Einstein's $E=mc^2$; in Newton's third law of motion, "For every action, there is an equal and opposite reaction"; in your body (you have two eyes, ears, hands, etc.); and even in your beliefs about justice, fairness, and dialog. Accordingly, designers can use symmetry to make their designs more practical and attractive.

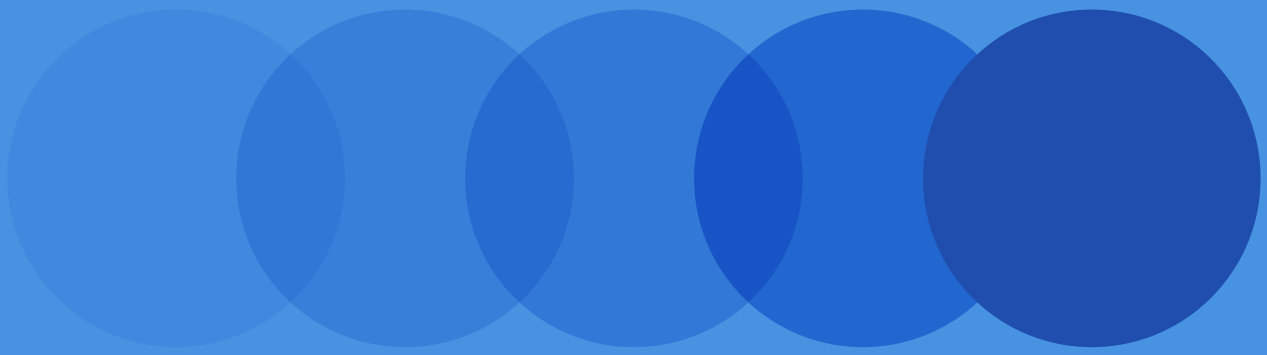
Have you ever seen a website that looks like a hodge-podge? Chances are it was not very appealing or user friendly because the human brain prefers some balance and symmetry in designs. For example, using consistent shapes, sizes, and patterns creates balance that is both useful and beautiful.

## TAKEAWAYS

- Use consistent spacing, shapes, sizes, and patterns to create balance
- Make a website style guide to maintain symmetry throughout your design



**SOURCE**
Wikipedia.org, Symmetry



# Law of Common Fate

Objects moving in unison appear to be related.

## OVERVIEW

When multiple objects follow the same trend of motion, they appear to be related or form a group. Synchronization further strengthens this perception, as seen in spectacles like synchronized swimming and the Blue Angels. Conversely, there is contrast if objects are moving in different directions or if some objects are stationary.

In web design, we see the Law of Common Fate in the synchronization of scrolling with viewports and mice with cursors. Likewise, using movement and animation in design can create perceptions of connection or contrast, for either functional or aesthetic purposes (e.g., pop-out menus, pop-up alerts, video backgrounds, animated graphics).*

## TAKEAWAYS

- To connect related content, use synchronized animations
- To make important content stand out, create contrast with motion
- Don't use assisted scrolling because it interferes with users' perception of Common Fate and causes frustration

**SOURCE**

* SmashingMagazine.com, Improve Your Designs With The Principles Of Continuation And Common Fate