Continuous Science Foundation

Case Studies

CASE STUDY – CURB CUTS

CURB CUTS & SIDEWALKS — HOW THE DISABILITY RIGHTS MOVEMENT TRANSFORMED PUBLIC SPACE FOR EVERYONE

BACKGROUND

In the 1970s and ’80s, disability advocates fought for simple, life-changing changes to the built environment — like curb cuts on sidewalks. At the time, these requests were seen as niche accommodations, aimed solely at people who used wheelchairs.

But once implemented, curb cuts revealed a profound truth: when you design for the margins, you design for everyone.

The Transformation

Installing curb cuts — the small ramps that connect sidewalks to the street — was a direct response to the disability rights movement, and later mandated by the Americans with Disabilities Act (ADA) in 1990.

What happened next surprised many:

- **Parents with strollers** navigated sidewalks more easily.
- **Delivery workers** with carts moved faster and with less strain.
- **Travelers with luggage** and **seniors with walkers** all benefited.
- Even **runners** and **skateboarders** found smoother transitions.

What was originally framed as "accommodation" became invisible infrastructure that lifted everyone.

KEY INSIGHTS

Designing for a specific, underserved user group can lead to systems that are more usable, intuitive, and humane for all.

Small, strategic interventions can shift entire systems. Curb cuts didn’t require rebuilding cities overnight. They began as localized changes—one intersection, one corner, one community at a time—yet they laid the foundation for a massive shift in how public space is imagined and governed. Their success shows how focusing on clear, tangible improvements can reorient broader infrastructure, culture, and norms. Change doesn’t always require sweeping reform sometimes, a well-placed cut can invite a different future.

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INSPIRATION FOR SCIENCE: REDESIGNING HOW WE COMMUNICATE KNOWLEDGE

Just as curb cuts reimagined sidewalks, we have the opportunity to rethink scientific standards, processes, and systems for a more inclusive, accessible, and impactful scientific enterprise.

THE CHALLENGE

Today's scientific communication is often designed *by and for* a narrow audience—those already fluent in academic norms and technical systems. As a result:

- Early-career researchers struggle to navigate publishing norms.
- Policymakers and the public find science inaccessible or opaque.
- Scientists themselves wrestle with outdated workflows that stifle innovation.

THE PARALLEL OPPORTUNITY

By intentionally designing **for the edge cases**—those underserved—we can build a system that benefits everyone. What if we treated science communication like a sidewalk?

Just as cities were once designed for able-bodied individuals, today's scientific communication systems are built for those fluent in its language, rules, and expectations. Peer-reviewed journals, submission portals, technical formatting requirements, and institutional processes often exclude more than they include.

Designing for Accessibility in Science Might Include

- **Interactive papers and dashboards**: supporting learning styles beyond dense PDFs.
- **Multimodal publishing**: combining text, visuals, data, & code for deeper understanding.
- **Open peer review**: demystifying the gatekeeping process and increasing trust.
- **Built-in support for reproducibility**: so others can validate, adapt, and build on work easily.

THE BIG IDEA

Just as disability advocates changed the world by demanding access, we can learn from their bold vision and their strategy—bringing that same spirit to the design of a movement for sharing scientific knowledge. Instead of designing scientific systems for the average user, what if we began at the *edges*? By focusing first on those facing the greatest barriers, could we create something more usable, inclusive, and powerful for everyone?

Curb cuts didn't just solve a mobility challenge—they reshaped how we think about *infrastructure.* A shift from reactive fixes to proactive design. A shift from seeing accessibility as an *add-on* to seeing it as a *foundation*. That change in mindset made room for an entirely new approach to public spaces—one that values inclusion as innovation.

What are the curb cuts in science?
How can we look at our systems differently?
What mindsets can we reframe with this lens?

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