info@khacreation.com • (925) 338-9117

Shift Left: The ROI of Early Accessibility

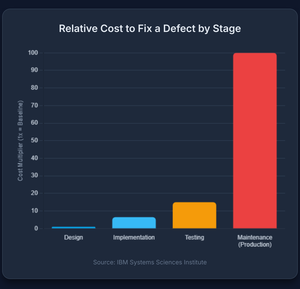
Discover why waiting to fix accessibility issues is costing your development team up to **100x** more than addressing them in the design phase.

The Economics of Software Quality

The "1-10-100" Rule

The Systems Sciences Institute at IBM reported that the cost to fix a bug found during implementation is approximately **6.5 times** higher than one found during design. If that bug makes it to maintenance (production), it costs **100 times** more.

> *"The most expensive defect is the one you find after you have shipped."*



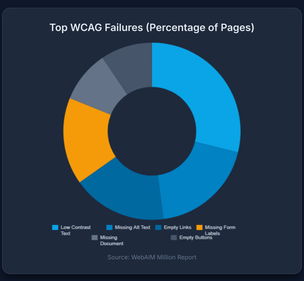
Source: IBM Systems Sciences Institute

The Most Common Failures

The WebAIM Million report analyzes the top 1 million homepages. Year after year, the same few issues plague the web. These are low-hanging fruit that automated testing in a "Shift Left" pipeline could catch instantly.

96.3%
of home pages have detected WCAG 2 failures.

50.8
average errors per home page.



Source: WebAIM Million Report

Waterfall vs. Shift Left

In traditional models, accessibility is a "compliance check" at the end. In a Shift Left model, it is integrated into every step, starting from design and requirements.

Traditional (Reactive)

- Design
- Develop
- QA Testing
- **Audit & Panic**
  Accessibility checked here. Major refactors needed.

Shift Left (Proactive)

- **Design & Annotate**
  Define headers, tab order, alt text.
- **Develop & Lint**
  Use axe-core, ESLint-a11y while coding.
- **Automated Tests**
  CI/CD Pipeline checks.
- **Manual QA**
  Focus on complex interactions, not basic bugs.

Source: UsableNet Year End Reports

Rising Legal Risk

The Litigation Explosion

Beyond the moral imperative and development savings, there is a tangible legal risk. Federal lawsuits regarding website accessibility have risen steadily. A "Shift Left" approach mitigates this risk by ensuring compliance is maintained continuously, rather than attempting to "patch" a non-compliant site after a demand letter arrives.

- ⚠ E-commerce is the primary target (over 70% of claims).
- ⚠ Small and medium businesses are increasingly targeted.
- ✓ Accessible sites reduce legal exposure significantly.

The ROI Checklist

Metric	Traditional Approach	Shift Left Approach
Bug Fix Cost	High (Retroactive patching)	Low (Preventative)
Time to Market	Delayed by audit cycles	Predictable (Built-in)
Code Quality	Spaghetti code / Overlays	Semantic & Clean
SEO Score	Average	High (Semantic HTML boosts rank)
Audience Reach	Limited (Excludes 15% of users)	Universal Design

Frequently Asked Questions

Q: What exactly is "Shift Left" in accessibility?

"Shift Left" refers to moving accessibility testing and considerations to the earliest stages of the software development lifecycle (SDLC)—such as the design and requirement gathering phases—rather than waiting until the final QA or post-deployment phase.

Q: What tools help implement Shift Left?

Key tools include **Figma plugins** (like Stark or A11y) for designers, **Linters** (eslint-plugin-jsx-a11y) for developers to catch errors while coding, and **Automated Testing Libraries** (axe-core, Pa11y) integrated into CI/CD pipelines.

Q: Does automated testing catch everything?

No. Automated tools generally catch about **30% to 50%** of accessibility issues (syntax errors, missing attributes). Manual testing with screen readers (like NVDA or VoiceOver) and keyboard navigation is still essential for testing usability and logic.

info@khacreation.com | (925) 338-9117

REFERENCES & CREDIBLE SOURCES

W3C Web Accessibility Initiative • WebAIM Million Report • UsableNet Lawsuit Reports • Deque Systems Research