

Aware Design

A Dossier on the Concept, Its Foundations, Evolution, and Origin

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Definition

Aware Design is an approach to digital design in which websites and applications are organized around what individual people are trying to do, rather than around the author's message, screen constraints, developer convenience, or feature checklists. The same underlying information can be presented with different starting points, levels of detail, and next steps according to the visitor's or user's current intent.

In its fuller formulation, Aware Design is positioned as the ninth paradigm in the evolution of web design. Prior eras optimized for authors (Static Web), scale (Dynamic Web), participation (Web 2.0), screens (Responsive Design), load time (Performance-First), developer consistency (Component-Driven), developer freedom (Headless/Decoupled), or feature checklists (AI-Enhanced). Aware Design optimizes for the person.

Core architectural claim: Intelligence is not a feature bolted onto an otherwise conventional experience. It is the architecture. Remove the intelligence and there is no meaningful default left.

The Ninth Paradigm

The following table summarizes the paradigm sequence as articulated in the Aware Design materials:

ERA	OPTIMIZED FOR
Static Web	Authors
Dynamic Web	Scale
Web 2.0	Participation
Responsive Design	Screens
Performance-First	Load time
Component-Driven	Developer consistency
Headless / Decoupled	Developer freedom
AI-Enhanced	Feature checklists
Aware Design	The person

Source framing: awaredesign.com materials describing the ninth paradigm.

Visitor-Aware Design and User-Aware Design

Aware Design distinguishes two related but distinct implementations that share the same foundational principles:

Visitor-Aware Design

For anonymous and low-identity visitors. The system makes intelligent decisions using real-time, ephemeral signals (referral context, behavior patterns, engagement depth) without persistent tracking or surveillance. Every anonymous visitor should feel the site understands them from the first interaction.

User-Aware Design

For authenticated users with known identities. The system leverages account history, preferences, and longer-term behavior to create deep continuity without feeling invasive.

Foundations and Preceding Work

The claim that no prior mainstream web-design paradigm optimized for the person is a framing of commercial and practitioner eras. A substantial research lineage did center adaptation to individual users:

Adaptive Hypermedia and the Adaptive Web

Beginning in the early 1990s, researchers developed adaptive hypermedia systems that maintain an explicit model of the individual user's goals, knowledge, interests, and other features, then adapt content presentation and navigation support (link hiding, sorting, annotation, generation) accordingly. The same system presents different content and pathways to different users. Key figures include Peter Brusilovsky; foundational papers appeared in *User Modeling and User-Adapted Interaction* (including the 1996 methods and techniques survey); the field expanded rapidly after the mid-1990s with the growth of the web. The 2002 *Communications of the ACM* article "From Adaptive Hypermedia to the Adaptive Web" and the 2007 volume *The Adaptive Web: Methods and Strategies of Web Personalization* synthesize the area.

Related strands include adaptive websites that mine access logs to improve organization (Perkowitz & Etzioni, late 1990s), Intelligent User Interfaces research (conference series since the late 1980s), and the broader user-modeling community (UMUAI journal from 1990). These systems treated adaptation as architectural rather than a cosmetic feature and directly addressed the "one-size-fits-all" problem.

Aware Design builds on this lineage while repositioning it for mainstream digital design practice, adding a strong privacy emphasis (ephemeral signals for anonymous visitors, avoidance of surveillance-style persistent tracking) and insisting that intelligence must be foundational rather than a bolted-on capability or checklist item.

Evolution of the Concept

Aware Design was developed by Dave Nilsen in the course of work on private AI data platforms, definition-driven repositories, and user-aware experiences. Iterative design refined the concept from practical visitor-intent adaptation to a named paradigm with two implementations (Visitor-Aware and User-Aware), supporting materials (whitepapers, patterns and anti-patterns, glossary), and a public thought-leadership site.

The current public presentation at awaredesign.com emphasizes practical starting points: organizing sites around what visitors are trying to do (exploring, comparing, acting), reordering the same facts according to intent (illustrated by a photography-workshop demonstration), preserving context with permission, and adding awareness only where different needs require different routes or levels of detail. The guidance is to start small—clear routes, better content and navigation, or visitor-controlled handoffs—and to evaluate changes by whether they help people complete what they came to do.

The concept is connected to related work by PKG Systems, including Profonti (a private, cited, definition-driven data repository) and Proareta (a user-aware excellence platform that generates personalized capability-building experiences). In this broader practice, intelligence-aware / visitor-aware principles inform both website design and deeper application architectures.

Role of Dave Nilsen

Dave Nilsen is the originator and principal developer of the Aware Design paradigm (also referred to in related work as Intelligence-Aware Design or Visitor-Aware Design). He is Founder and Principal of PKG Systems, a technology consulting practice established in 2000 that serves large enterprises, mid-market companies, and government organizations. Through PKG Systems he offers evaluation, audit, and implementation services related to private AI data platforms and aware design approaches. The public thought-leadership platform is awaredesign.com.

Nilsen's contribution consists of articulating the ninth-paradigm framing, defining the Visitor-Aware / User-Aware distinction with its privacy and continuity characteristics, insisting on intelligence as architecture rather than feature, and translating research-lineage ideas into practical guidance and commercial services for contemporary web and application design.

Current Expression and Resources

- **Public site:** awaredesign.com — practical introduction, interactive demonstration, guidance on assessing fit, and contact pathways.
- **Supporting materials** referenced in earlier site versions: foundations, whitepapers on Visitor-Aware Design, named patterns and anti-patterns, and a glossary.
- **Commercial application:** services available through PKG Systems (pkgsystems.com) for organizations seeking evaluation or implementation of aware approaches alongside private data platforms.

Selected References

1. Brusilovsky, P. (1996). Methods and techniques of adaptive hypermedia. *User Modeling and User-Adapted Interaction*, 6(2–3), 87–129.
2. Brusilovsky, P. (2001). Adaptive hypermedia. *User Modeling and User-Adapted Interaction*, 11(1–2), 87–110. (and related surveys)
3. From Adaptive Hypermedia to the Adaptive Web. *Communications of the ACM*, 45(5), 2002.
4. Brusilovsky, P., Kobsa, A., & Nejdl, W. (Eds.). (2007). *The Adaptive Web: Methods and Strategies of Web Personalization*. Springer.
5. Perkowitz, M., & Etzioni, O. (1999/2000). Towards adaptive web sites / Adaptive web sites. (various publications).
6. awaredesign.com (public presentation of Aware Design, Visitor-Aware Design, and related materials).

Document prepared October 2026. Content draws on the public materials at awaredesign.com, the established adaptive hypermedia and adaptive web literature, and the documented development of the concept by Dave Nilsen / PKG Systems. This dossier is a primary compilation intended for professional and reference use.