Mark Weiser’s vision is best known as **“ubiquitous computing”** (often shortened to **ubicomp**), which he introduced in the late 1980s and early 1990s while working as Chief Technologist at Xerox PARC. His core idea was that the most profound technologies are those that “disappear” — becoming so seamlessly integrated into everyday life that people use them without consciously thinking about them.

**Key Principles of Weiser’s Vision**

**1. Calm Technology**

* Technology should quietly serve people in the background, drawing attention only when necessary.
* Instead of demanding constant focus, devices should let users stay engaged in their primary tasks.
* The environment itself becomes “*smart*,” with devices communicating without user intervention.

**2. Invisibility Through Integration**

* Computing devices would be embedded into everyday objects — furniture, walls, clothing — making them effectively invisible.
* Interaction happens naturally (e.g., by touching a surface or walking into a room), not through explicit commands.

**3. Many Devices, Not One**

* Instead of a single powerful personal computer, people would interact with dozens or hundreds of small, networked devices.
* These devices would work together, sharing data and context, providing the right information at the right time.

**Weiser’s Prototypes**

At Xerox PARC, Weiser’s team built early ubicomp devices to illustrate his ideas:

* **Tabs** – tiny, wearable badges or ID-card-sized devices for simple, location-aware functions.
* **Pads** – tablet-sized devices for note-taking and reading.
* **Boards** – large, wall-mounted interactive displays for group collaboration.

These were precursors to today’s smartphones, tablets, smart displays, and IoT devices.

**Impact on Modern Technology**

Weiser’s vision has influenced:

* **IoT (Internet of Things)** – Smart homes, wearable devices, connected cars.
* **Ambient Computing** – Voice assistants (Alexa, Google Assistant), smart sensors.
* **AR/VR and Context-Aware Systems** – Devices that adapt to users’ needs and environments.
* **Edge Computing** – Bringing processing power closer to users for speed and privacy.