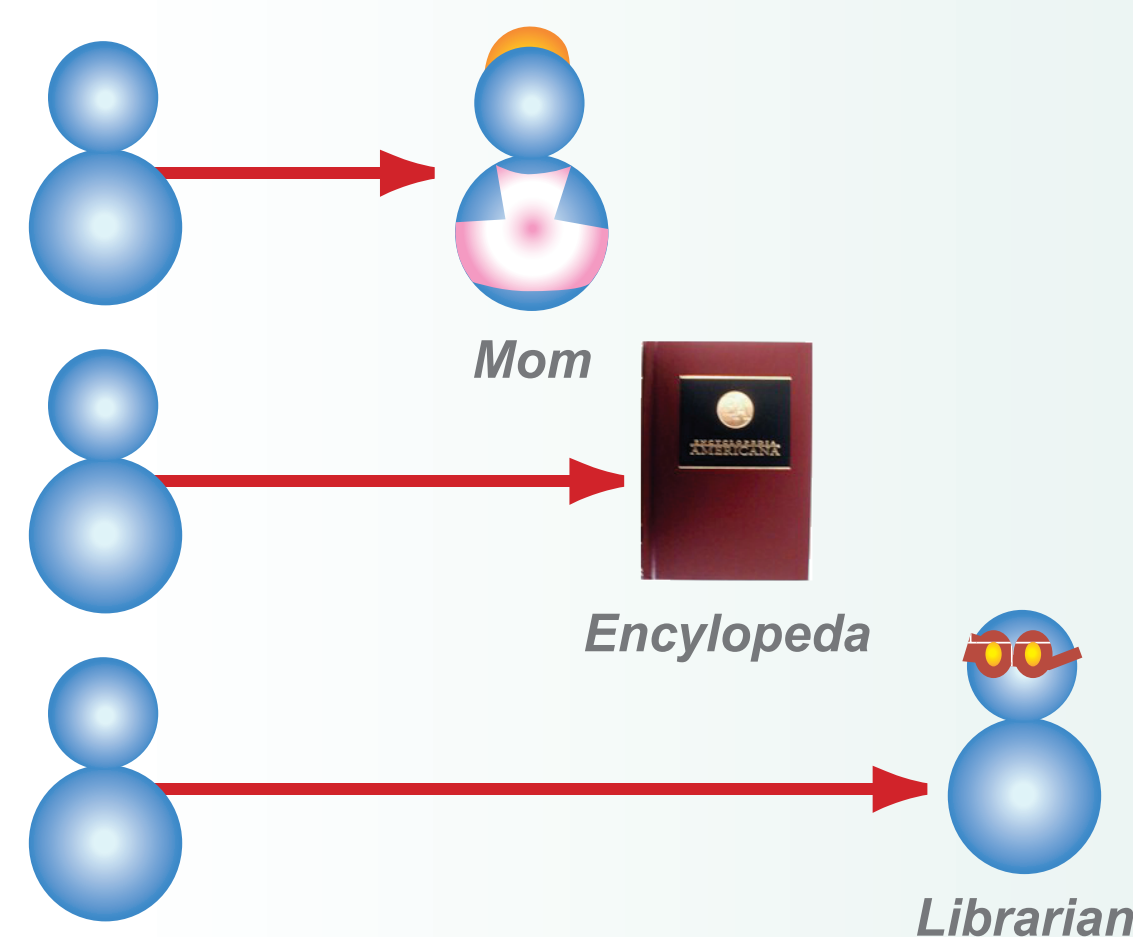


# Next Generation Search

Marianne Sweeny, Microsoft

## 1<sup>st</sup> Generation Interpersonal Search



### Characteristics

- Human-mediated
- Shared context
- Refined relevance through searcher feedback

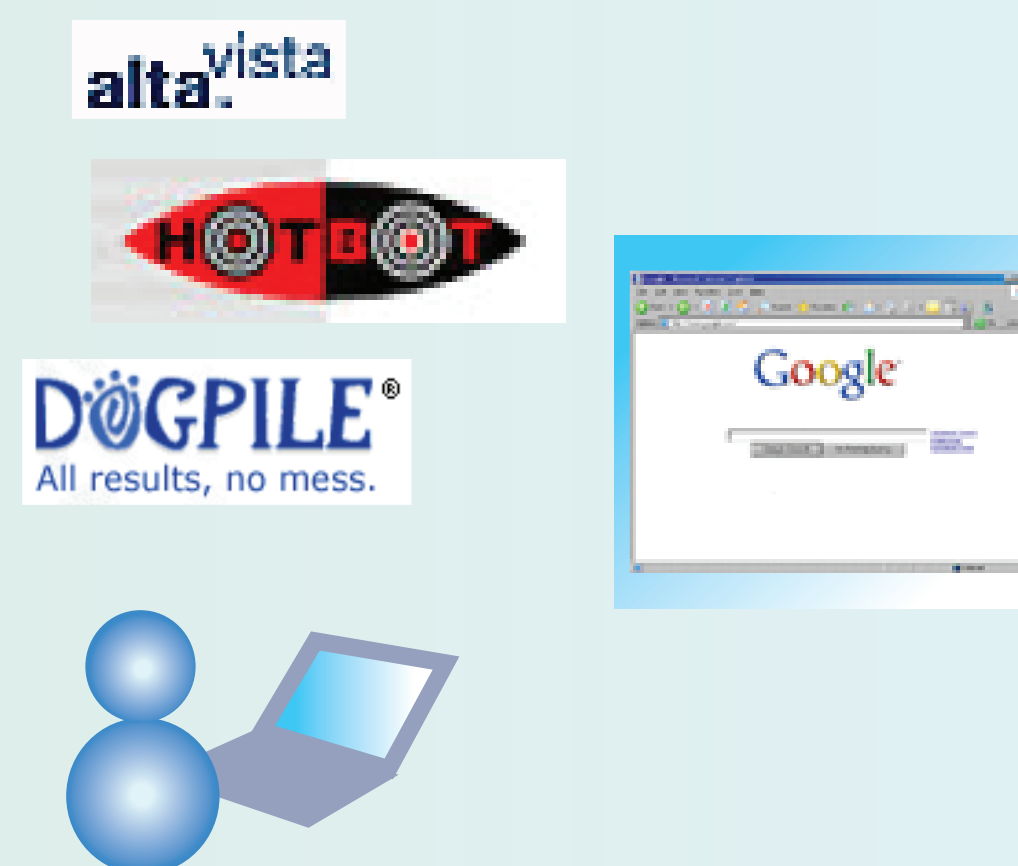
## 2<sup>nd</sup> Generation Online Directories



### Characteristics

- Human-mediated using machine-skilled professionals cataloguing the web
- Shared context not always shared meaning
- Static relevance determined by cataloguer and accepted or rejected by searcher

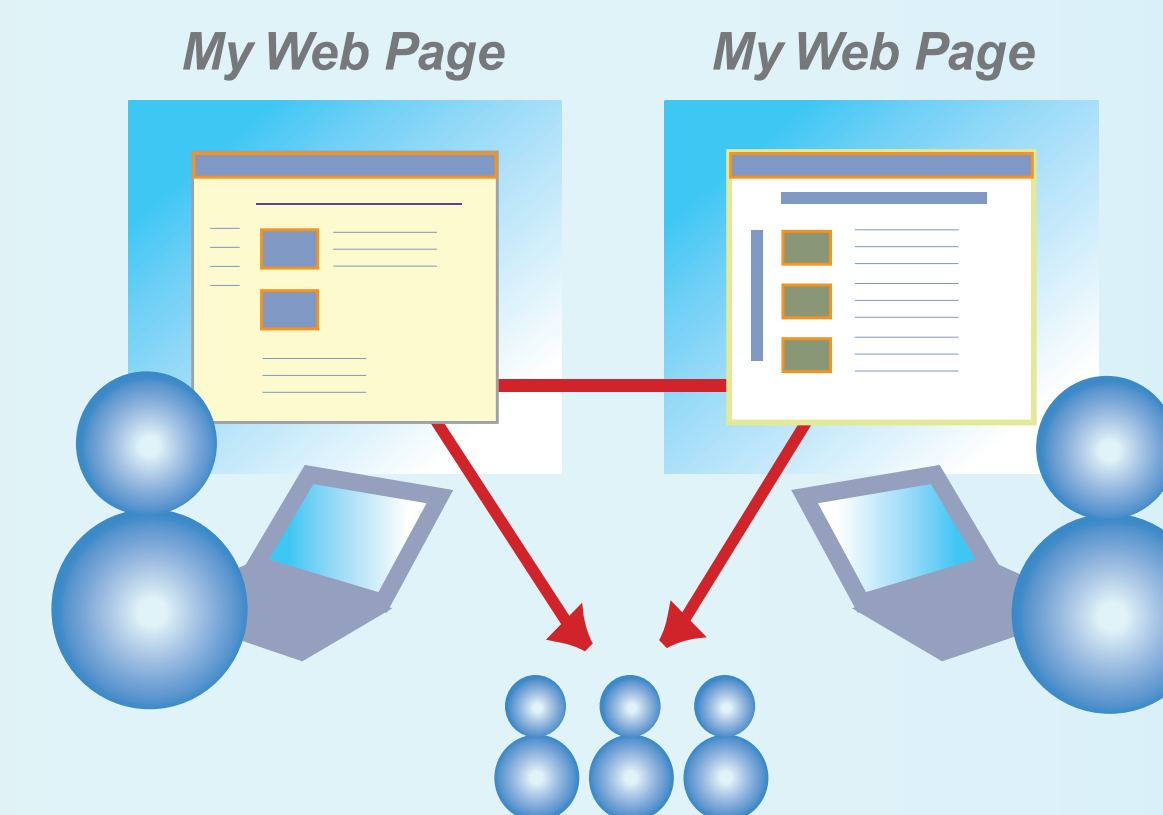
## 3<sup>rd</sup> Generation Search Engines



### Characteristics

- Machine-mediated
- Birth of the box - abstracted query processing
- Introduction of algorithm - based on recall and (keyword) weighting for precision
- Google - user friendly UI, Page Rank algorithm
- Dynamic relevance tied to weighting & proprietary algorithms

## 4<sup>th</sup> Generation Social Search



### Characteristics

- Human-directed/machine-mediated
- Introduction of community - social bookmarking (Yahoo!, del.icio.us, Technorati) - specialized search (local search, vertical search, NonText search)
- Exposure of "deep Web"
- Some searcher relevance refinement - Yahoo Mindmapper - RSS Feed subscription

## Next Generation Perfect Search



### Characteristics

- Human-like machine mediation
- All knowing all digital documents
- All understanding - Probabilistic Latent Indexing - Latent Semantic Indexing
- Dynamic relevance through predictive refinement

"... a reference librarian with complete mastery of the entire corpus of human knowledge."

- Larry Page  
Cofounder, Google