

# Health 2.0

## User-Generated Healthcare

TEPR

3 February, 2009

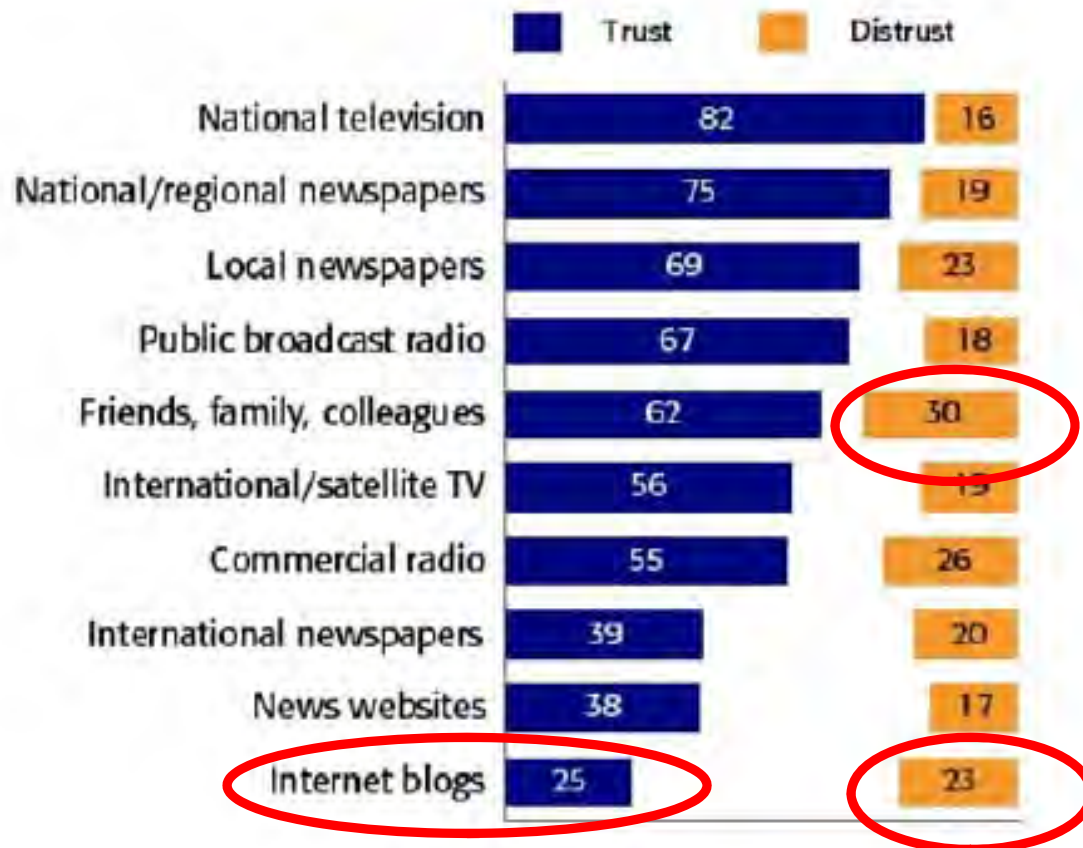
Matthew Holt

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# Media sources people trust

## Trust in Different Media Channels

Trust vs Distrust, Average of 10 Countries, by News Source



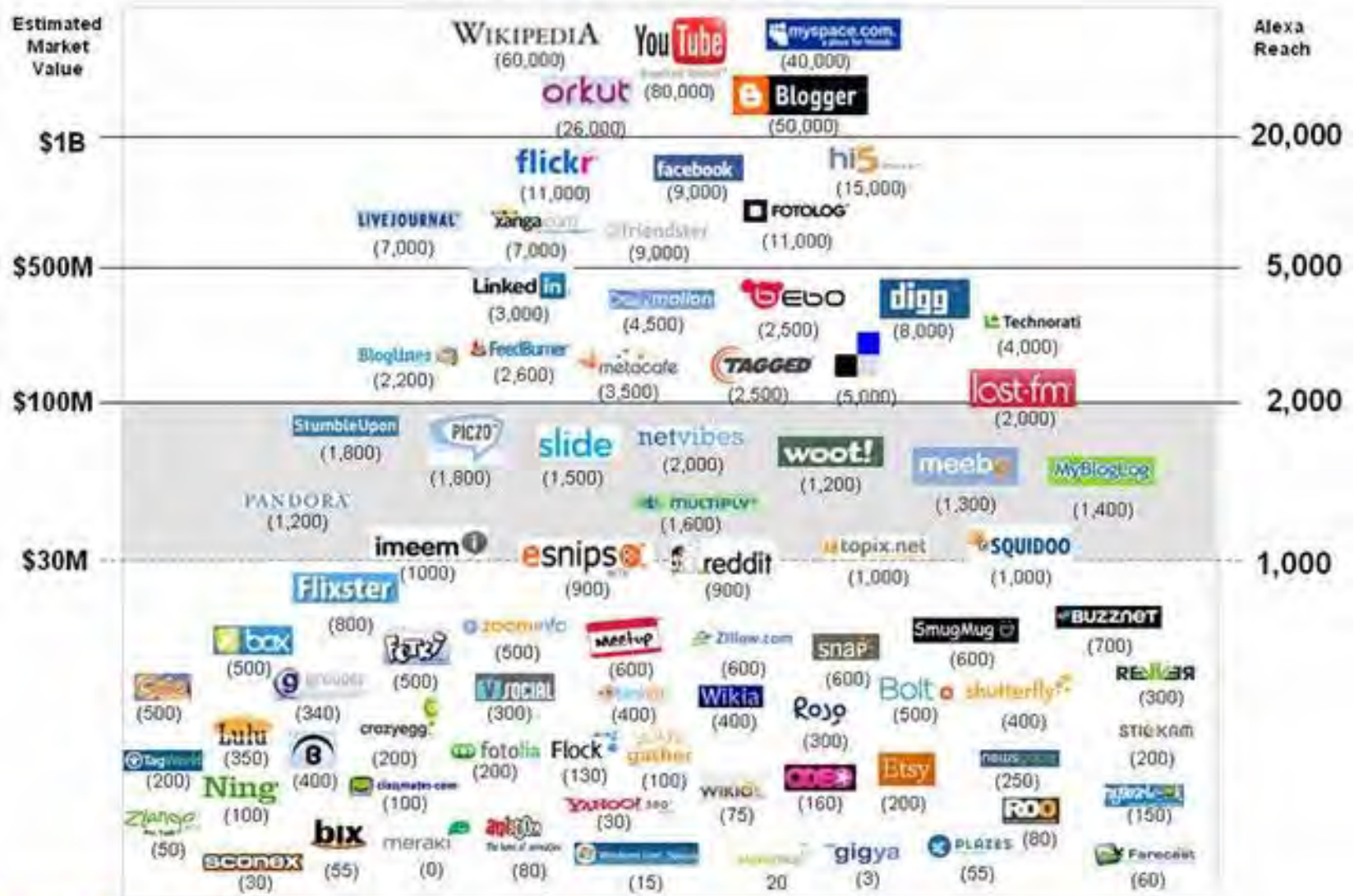
Source:  
Globescan/BBC/  
Reuters 2006



# What the hell is Web 2.0?



# Web 2.0 Eco-system



esnips Created by Yael Elish, CEO eSnips

# eThis, That & The other vs. Web 2.0

## WWW, born 1994-5 publishing, searching, reading

- Content Management
  - Syndicated
  - Subscribed
  - Internally created
  - Integrated from data sources
- “Webmaster” regulated
  - Institutional publishing standards
  - Prescribed branding
- Dominant letters
  - e, later i
  - Dash optional

## Web 2.0, nee. 2005-7 uploading, sharing, collaborating, searching

- Social networks
  - Blogs
  - Wikis
  - Forums, Groups, Discussions
  - Video/content sharing
- Sharing Tools
  - Community policing
  - Posting guidelines
- Dominant letters
  - r, z, x, 2.0
  - Periods, but no vowels allowed

# Web 2.0:

## *O'Reilly's Core Competencies*

- Services, not packaged software, with cost-effective scalability
- Control over unique, hard-to-recreate data sources that get richer as more people use them
- Trusting users as co-developers
- Harnessing collective intelligence
- Leveraging the long tail through customer self-service
- Software above the level of a single device
- Lightweight user interfaces, development models, AND business models

**What the hell  
is Health 2.0 ?**

**Are you still  
wondering?**



# What is “Health 2.0”

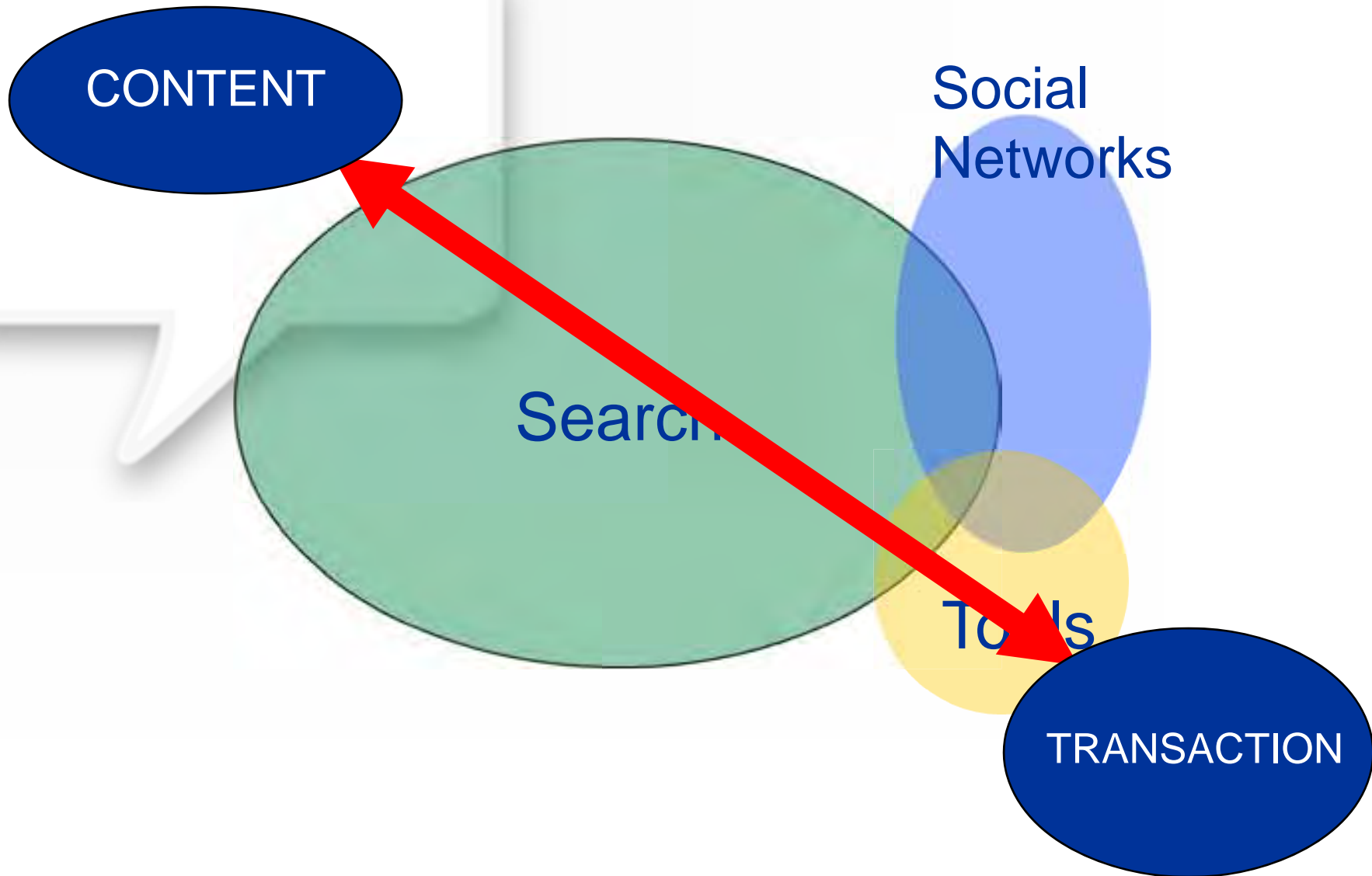
## *Matthew Holt’s best guess at the constituent parts*

- Personalized search that finds the right answer for the long tail
- Better presentation of integrated data
- Communities that capture the accumulated knowledge of patients and caregivers; and clinicians
- Intelligent tools for content delivery

*And just maybe . . . .*

Patients (really!) in charge of their own care?

# Health 2.0: User-Generated Healthcare



# Personalized search

The screenshot shows a Mozilla Firefox browser window with the address bar displaying "http://www.healia.com/healia/search.jsp?query=diabetes&x=0&y=0". The search engine is Healia, and the search term is "diabetes". The search results are displayed in a list format, with the first result being the "American Diabetes Association Home Page". A blue arrow points to this link. The sidebar on the left contains various filters and links, including "Diabetes Facts & Info" and "Diabetes information".

Search results for diabetes (Showing 1 - 10 of 3,506,365)

Suggested Result for **Diabetes mellitus** [Source: Wikipedia / ?]  
Diabetes mellitus is a disease characterized by persistent hyperglycemia (high blood sugar levels), resulting either from inadequate secretion of the hormone insulin, an inadequate response of target cells to insulin, or a combination of these factors. [more]

Filters: [on] [off] [a] [B] [a] Search History [feedback] [help]

Results for diabetes (Showing 1 - 10 of 3,506,365)

Suggested Result for **Diabetes mellitus** [Source: Wikipedia / ?]  
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All Prevention Causes/Risks Symptoms Diagnosis/Tests Treatment ?

- American Diabetes Association Home Page**  
Get the latest **diabetes** news and **diabetes** research summaries. What is the best tool to use to trim my toenails? Donate today . The scammers use official looking documentation (with...  
<http://www.diabetes.org/home.jsp> - More from site - Cached - Email This  
Attributes: Treatment, Prevention, Advanced Reading, Privacy Policy
- National Diabetes Information Clearinghouse**  
Newsletter BACK TO Newly diagnosed or at risk? **Diabetes**-related problems of the heart, kidneys, eyes, feet and skin, nerves, teeth and gums...  
<http://diabetes.niddk.nih.gov/> - More from site - Cached - Email This  
Attributes: Advanced Reading, Privacy Policy, Fast Loading
- Diabetes**  
Web site for **Diabetes**  
<http://diabetes.diabetesjournals.org/> - More from site - Cached - Email This  
Attributes: Advanced Reading, Fast Loading
- Canadian Diabetes Association**

Filters: ?

Results for / about:

- Professionals
- Females
- Males
- Kids
- Teens
- Seniors
- Afro Heritage
- Hisp. Heritage
- Native Peoples

Results that have / are:

- Basic Reading
- Advanced Reading
- HTMLcode Sites
- URAC Accredited
- Privacy Policy
- Easy to Scan
- Fast Loading
- For Text Browsers
- Interactive Tools

Web

**Diabetes Facts & Info**  
[www.walmart.com](http://www.walmart.com) - Wa

Refine results for **diab**

Treatment Tests/symptoms Cause/symptoms

**American Diabetes Association**  
Their mission is to prevent  
[www.diabetes.org/](http://www.diabetes.org/) - 48k -

**Diabetes Inform**  
The American **Diab**  
first steps toward be  
[www.diabetes.org/](http://www.diabetes.org/)  
[ More results from: ]

**Diabetes information**  
Offers dietary recommenda  
From GlaxoSmithKline  
[www.diabetes.com/](http://www.diabetes.com/) - 13k

**Diabetes**  
Web site for **Diabetes**. ...  
© assists in the publication  
[diabetes.diabetesjournals.org](http://diabetes.diabetesjournals.org/)

**Diabetes - Arch**

Done Done





# Intelligently presenting content

The screenshot shows a web browser window displaying the doublecheckmd website. The browser's address bar shows 'Aciphex Consumer' and the search bar contains 'RohoForm'. The website header includes the doublecheckmd logo and a navigation bar with 'USER LOGIN'. The main content area is titled 'Your Personal Drug Evaluation' and features a tabbed interface with 'My Next Steps' selected. A blue arrow points to the 'Next Steps' section, which contains the following text:

**Your personalized messages:**

**Next Steps**

**ASK YOUR PHYSICIAN ABOUT DRUG(S) THAT MAY CAUSE YOUR SYMPTOMS**

Your physician should evaluate whether the following drugs could be causing your symptoms (easy bruising)

- Prozac
- Prozac and aspirin (drug interaction)
- Cardizem and aspirin (drug interaction)

**BLOOD TESTS**

Ask your physician whether you need the following blood tests (if you've not already had them):

- Prothrombin time or an "INR"
- Bleeding time

**FOLLOW UP WITH YOUR PHYSICIAN**

Your physician will want to follow you closely to check for:

- Effectiveness of blood pressure-lowering medications

**WATCH FOR THESE SIDE EFFECTS**

Watch closely for the following side effects and notify your physician immediately should any of these develop:

- Muscle pain
- Muscle weakness
- Muscle tenderness
- Worsening chest pain (angina)

At the bottom of the browser window, the text 'the past 5 years:' is visible in red.

# Highlights from the 1st Edelman Health Engagement Barometer



**7 in 10 adults demand engagement...  
*especially for personal health issues that matter most to them***

- **22% of the population are Health Info-entials**
- **Most frequently accessed channels of health information:**
  - Conversations with friends/family (69%)
  - Conversations with my doctor or healthcare provider (65%)
- **Social media is *more credible* when coupled with health expertise**
  - Top social medium: Health expert blogs (86%)
  - Other most credible media include personal blogs, social networking sites, video-sharing sites, and Wikipedia

Source: Edelman Health Engagement Barometer, survey of 5,000 consumers in USA, UK, France, Russia, China.

# Search & Online Communities



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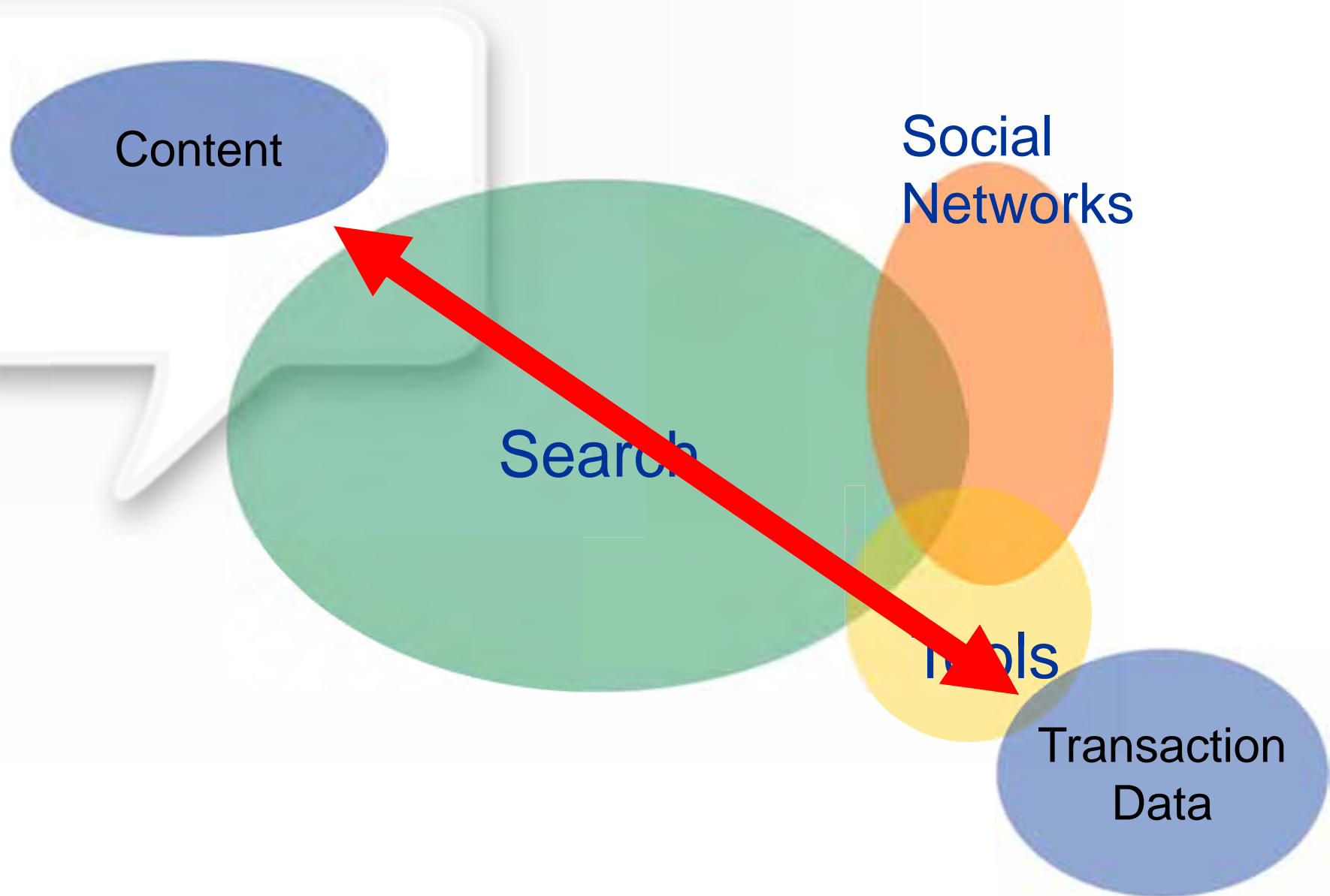
# Emergence of Consumer-Focused Tools



1. Personalized
2. Analytical
3. Supporting Decisions
4. Enabling Transactions



# Health 2.0: User-Generated Healthcare



# So now what is “Health 2.0”?

## *Holt’s evolving view of a moving target*

- Personalized search that looks into the long tail, but cares about the user experience
- Communities that capture the accumulated knowledge of patients and caregivers; and clinicians – and explain it to the world
- Intelligent tools for content delivery – and transactions
- Better integration of data with content

*And it’s not a maybe anymore...*

Patients increasingly guiding their own care

# Transparency & Consumerism



# Health 2.0: Scott Shreeve's Definition



"New concept of healthcare wherein **all constituents** (patients, physicians, providers, and payers) focus on **healthcare value** (outcomes/price) and use **competition at the medical condition level** over the **full cycle of care** as the catalyst for improving the **safety, efficiency, and quality** of health care."

# Health 2.0 as Market & Services



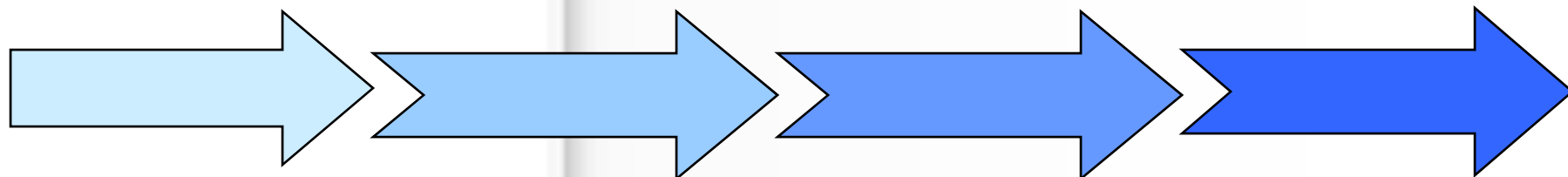
AMERICAN WELL

the next generation of health communication

Carol.  
The Care Marketplace



# A continuum of Health 2.0?



## User-generated health care

Use of Web2.0 technologies for patients and physicians to communicate and investigate **without connecting** to the health care system

## Users connect to providers

Tools and communities created as part of Web2.0 in health care, which then becoming connected to the system (i.e. creating appointments, conducting transactions, managing clinical events)

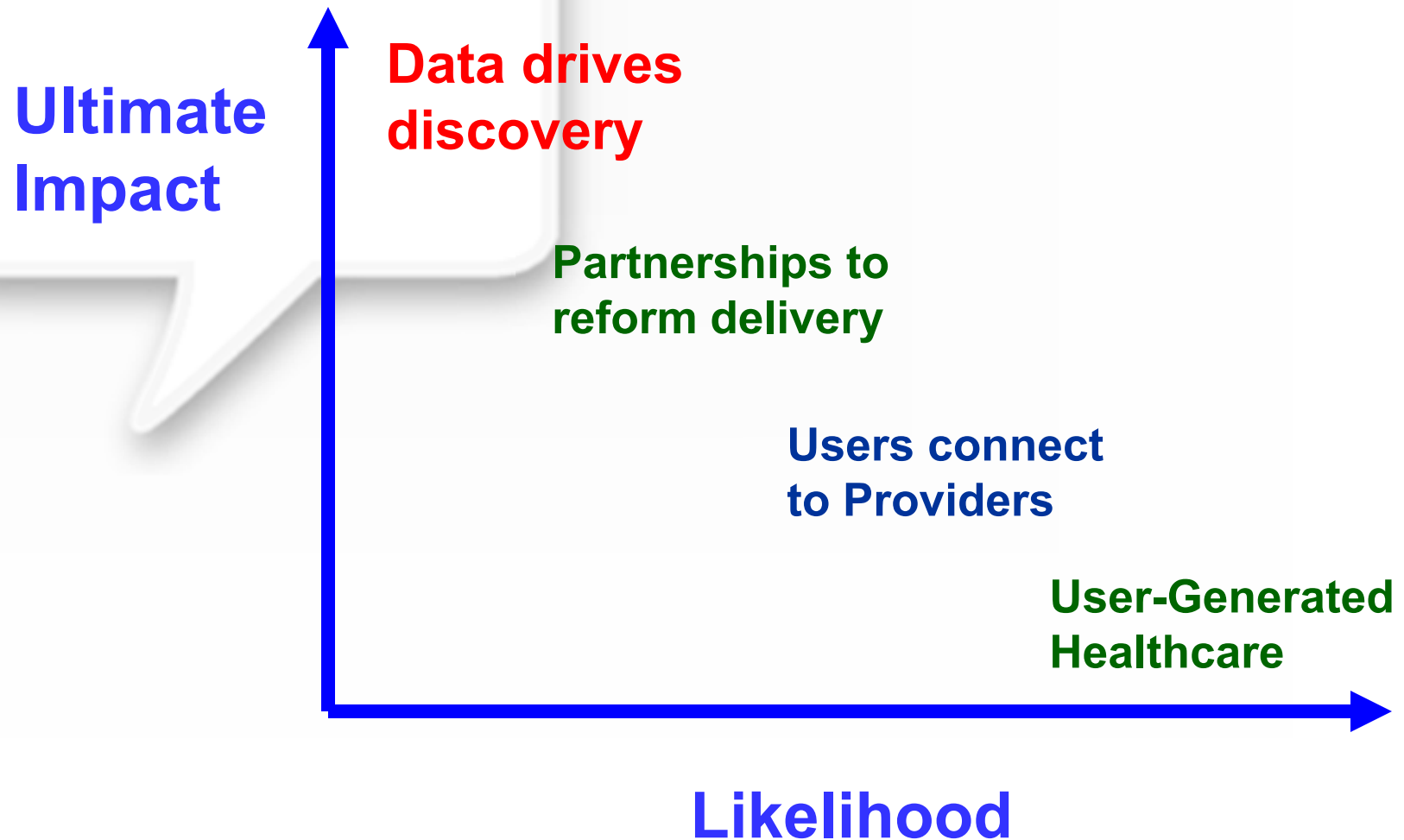
## Partnerships to reform delivery

Reforms in payment structures, transparency, and technology produce changes in delivery structure and process around chronic care treatment, excellence centers for particular procedures, etc.

## Data drives discovery

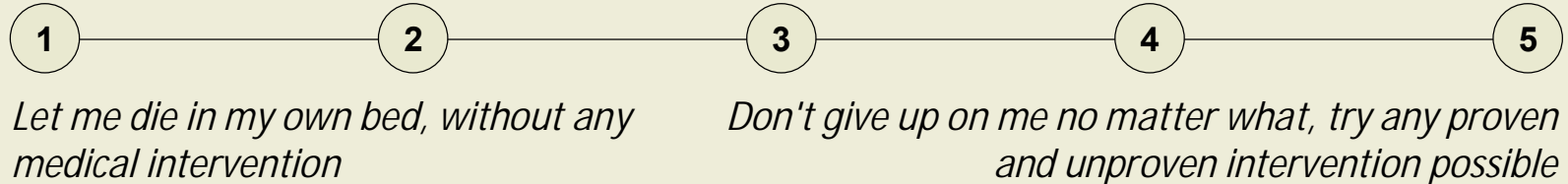
All the data collected in a combination of a, b & c produces leaps ahead in the process of care and eventually in drug and procedure discovery.

# The Present and Potential of Health2.0



# Can You and Your Loved Ones Answer These Questions?

1. On a scale of 1 to 5, where do you fall on this continuum?



2. If there were a choice, would you prefer to die at home, or in a hospital?
3. Could a loved one correctly describe how you'd like to be treated in the case of a terminal illness?
4. Is there someone you trust that you've appointed to advocate on your behalf when the time is near?
5. Have you completed any of the following: written a living will, appointed a healthcare power of attorney, or completed an advanced directive?







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