

Optimizing User Interfaces for the Elderly

Brandon Woolman

Framing a Problem

- Elderly have less familiarity with technology
- Health issues increase with age
- Connecting with the internet is a common occurrence for most of the world
- Many sites have a lot of distracting components
- Roughly 2/3 of people over 60 regularly access the internet (Anderson & Perrin, 2017)

Aging and Cognitive Decline

- Physical Changes
- Perceptual Changes
 - Colors are less bright
- Cognitive Load
 - Short-Term store reduced
 - Processing speed decreases

Social Media

Significant amount of icons

Unnecessary info

Flashy \neq Easy

Logging in and interacting is difficult on facebook (Arfaa & Wang, 2014)

Other issues include simple navigation to the homepage and sending messages

Less interactive components the better (Chen, 2009)

Social Media Example

The image shows a screenshot of a Facebook news feed with several red annotations in brackets: [1] points to the 'Events' section in the left sidebar; [2] points to the search bar at the top; [3] points to the 'What's on your mind?' text input area; [4] points to a notification for a photo tag; [5] points to the user's profile picture and name; [6] points to the 'Update Status' button; [7] points to the 'Add Photos/Video' button; [8] points to a trending post by Ariana Grande; and [9] points to the 'Friends' list on the right sidebar.

Search for people, places and things [2]

Lizz Gee Home [5]

Update Status [6] Add Photos/Video [7]

What's on your mind? [3]

Events [1] 2

PAGES

- Stomping Ground
- Like Pages 20+
- Pages Feed 20+
- Create Ad

APPS

- Games
- TripAdvisor
- Zoosk 6
- Pose
- What will you husband...
- On This Day
- Family Feud
- Deal or No Deal
- BINGO Blitz
- True

Kasia Dundas was tagged in Tiffany Price's photos. [4] 5 hrs · 📍

Summer's Here! (Kind... at 6:00pm) [5]

TRENDING

- Bryan Cranston: Bryan Cranston Won't Rule Out a Breaking Bad Comeback
- Ariana Grande: Ariana Grande - Problem ft. Iggy Azalea [8]
- Miami Heat: Heat Reach 4th Straight Finals in Rout

See More

SPONSORED [9] See All

Discover the... feistyfrugalandfabulous.com

Show your kids the value of giving back at our #Plusabilities Clothing Donation Days. Det...

Target Canada

This Father's Day, Dad can laze all afternoon in this hammock for just \$60. We've got more...

Jenna Furoy likes Wipe Out Homophobia's photo.

Christina Kadence Flynn is listening to The Phoenix by Fall Out Boy on Spotify.

Paula Granville made a deal in Monster World.

Zach Howell likes Monami Frost's photo.

Cassandra Glassen · 57m [9]

Amber Hutt · 22m [9]

Galea Jacob

Alex Shak

Lucus Houle · 1m [9]

Aeman Ansari · 11h [9]

MORE FRIENDS (12)

Alokanvar Strlecki · 11h [9]

Search

Health Websites

Health declines with age

Most issues with telehealth stem from lack of tech experience (Demiris et al., 2023)

Similar issues to social media

Moving parts can be a distraction



Request an Appointment
Find a Doctor
Find a Job
Give Now

Log in to Patient Account
English
Twitter Facebook Pinterest YouTube

- CARE AT MAYO CLINIC
- HEALTH INFORMATION
- FOR MEDICAL PROFESSIONALS
- RESEARCH
- COLLEGE OF MEDICINE AND SCIENCE
- GIVING TO MAYO CLINIC

Appointments at Mayo Clinic

Mayo Clinic offers appointments in Arizona, Florida and Minnesota and at Mayo Clinic Health System locations.

Request Appointment

Healthy Lifestyle Consumer health

Print

- Basics
- In-Depth
- Expert Answers
- Multimedia
- Resources
- News From Mayo Clinic

Products and services

The Mayo Clinic Diet

What is your weight-loss goal?

- 5-10 lbs »
- 11-25 lbs »
- 25+ lbs »

Telehealth: Technology meets health care

See how technology can improve your health care.

By Mayo Clinic Staff

How many times have you heard it said that the internet has changed modern life? Indeed, it's likely changed how you stay in touch with family and friends and buy goods and services. And it's

Advertisement

https://www.mayoclinic.org/appointments

Feedback

Health Website Example

Applying Nielsen's Heuristics



Visibility – Color palates, visuospatial info.



Feedback and Constraints –

How an interaction changes a webpage

Help bar might be important

Warning messages

Change indicators

Applying Nielsen's Heuristics (Cont.)

Mapping – Usually less important

- Consistency of interactive components uses mapping (i.e. cues)

Consistency – Parts that interact should be similar

- Color
- Text
- Size

Affordance – How much are they told

- Important for old people
- Directs toward a specific use
- What types of cues are used

What makes a good website for the elderly?

Simplicity

- Distinguishable colors without a crazy palate
- Consistency across interactable components
- Affordances that make sense – Blinking lines to type

Less is more

- Limit of text
- Limit of interactables
- Help bars might be useful

Good Example

The screenshot displays the website for UP Health System - Portage. At the top, a dark blue navigation bar contains links for "About Us", "Contact Us", "Patient Portal", "Bill Pay", "Careers", and a prominent "Schedule Appointment Now" button. Below this is the "UP HEALTH SYSTEM" logo and a secondary navigation menu with "Find a Provider", "Services", "Patients & Visitors", "Get Care Now", and "Locations". A search icon is positioned on the right. The main content area features a large aerial photograph of the hospital campus with the text "UP Health System - Portage" overlaid. On the left, a dark blue sidebar lists "Patient & Visitor Information" (with a plus icon), "Phone Directory", "Our Leadership", and "Portage History". The main text area includes the heading "Our Hospital" followed by a paragraph: "UP Health System – Portage supports a multi-specialty medical community of over 40 physicians, and over a dozen allied health professionals, and has been serving the Western Upper Peninsula of Michigan since 1896. The main campus is a 36-bed hospital, a verified chest pain center through the Society". To the right, contact information is provided: "Phone 906.483.1000" and "Address". A green chat bubble contains the text "Hi there! Welcome to UP Health System. Can I help you schedule an appointment?". A "View on Google Maps" link is partially visible at the bottom right.

About Us Contact Us Patient Portal Bill Pay Careers Schedule Appointment Now

UP HEALTH SYSTEM Find a Provider Services Patients & Visitors Get Care Now Locations

UP Health System - Portage

Patient & Visitor Information +

Phone Directory

Our Leadership

Portage History

UP Health System - Portage

Our Hospital

UP Health System – Portage supports a multi-specialty medical community of over 40 physicians, and over a dozen allied health professionals, and has been serving the Western Upper Peninsula of Michigan since 1896. The main campus is a 36-bed hospital, a verified chest pain center through the Society

Phone
[906.483.1000](tel:906.483.1000)

Address

Hi there! Welcome to UP Health System. Can I help you schedule an appointment?

View on Google Maps

Significance/Applications

- Changes in general websites could increase usability
- Make social media platforms more elderly-friendly
- Healthcare webpages could benefit from reducing features
 - Decrease confusion
 - Improve regional public health

Citations

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