Technology and Innovation: How Our Life and Digital Experiences Shape Our Expectations for Services

June 4, 2019
41st I&R Training and Education Conference
Long Hours, No Vacation and most Dangerous!

Probability that you'll be killed by the thing you study by field:

More likely:

Astronomy
Law Criminology
Marine Biology

Economics
Chemistry
Volcanology

Mathematics
Meteorology

Gerontology
Story Time.....
A Tale of Two “Maw Maws”

Katrina's Track
- Tropical Depression (winds less than 39 mph)
- Tropical Storm (winds 39-73 mph)
- Hurricane (winds greater than 74 mph)
- Major Hurricane (winds greater than 115 mph)

Katrina makes landfall in Plaquemines Parish, LA, at 7am Aug. 26, as a strong Category 4 hurricane with 145 mph winds.

Katrina quickly re-intensifies, reaches Category 5 status with 175 mph winds on

Katrina strikes South Florida as a Category 1 Hurricane on Aug. 25-26

Katrina forms as T.D. 12 at 4pm August 23

Katrina weakens to a Tropical Storm at 7pm Aug. 28 just northwest of Meridian, MS.
Setting the Stage…..

Maw Maw 1
• Married at 14
• First Child at 15
• Grand Mother at 30
• 1 Daughter, 4 Sons
• Married, owned home, most immediate family lived within 5 miles
• Wiccan/Catholic
• Gerontologist in Family

Maw Maw 2
• Married 14
• First Child 15
• Grand Mother at 30
• 3 Daughters, 1 Son
• Married, owned home, 2 daughters lived within 20 miles
• Catholic
• Gerontologist in Family

Both lived less than 2 miles from each other.
One Evacuated, The Other Didn’t…. 
Evacuated to North Louisiana on August 28, 2005

- Moved in with Me
- I became primary Caregiver
- Coordinated HCBS services
- Medical Care
- Navigated State and Federal Program
  - Social Security
  - Medicare
  - Medicaid
  - FEMA/Disaster Recover
  - Relocation
- Eventually Public/Senior Housing
Two Weeks Later....
She Lives!
“...she looked like the Queen of Sheba, laying on the cot, wearing leopard skin pants....”
LTSS Puzzle: The Status Quo

ADRC
Aging and Disability Resources for Colorado
Streamlines access to LTSS information and services that allow people to remain as independent as possible.

CDSS/CDHS
County Department of Social/Human Services
Local departments that provide financial eligibility determination for older adults, people with physical disabilities and mental health needs for Medicaid waiver and programs.

DDS
Disability Determination Services
State agency makes the disability determination for the federal Social Security Administration.

ILCs
Independent Living Centers
Private, non-profit, community-based organizations that provide information and referral, peer counseling, independent living skills training, individual and systems advocacy for all disabilities across the lifespan starting at age five.

CCBs
Community Centered Boards
Private, non-profits designated in statute as the single entry point into the LTSS system for people with developmental disabilities. Can also be a service provider.

SEPs
Single Entry Points
Entry points for potential Medicaid LTSS clients. Provide information, screening, assessment of need, and referral to appropriate programs. SEPs serve older adults and people with physical disabilities and mental health needs.

AAAs
Area Agency on Aging
Local programs that provide information and services on a range of assistance for older adults and those who care for them.

State Services
Services for older adults and people with physical disabilities with funding from the Older Americans Act and the Older Coloradans Act, administered through the Colorado Department of Human Services.

Medicaid
Public health insurance for people with physical and developmental disabilities and older adults (among others). Provides LTSS at home and in the community, as well as in institutions such as nursing homes, to eligible individuals.

Institution
Medicaid Waiver
PACE
Home Health

Medicare
Social Security
Banking
Housing
FEMA
Private Pay Transport
Why is this important.....

• An individual's personality changes little over time
  • High stability with respect to rank-orders and mean-levels of personality traits
  • Psychological turning points in general showed very little influence on personality trait change

• A person's values tend to change with time/age
  - Values of a child are different than those of young Adults
  - What is valued as a single adult differs when one is married or has children
  - Values as a parent differ change when one retires
Survey Time.....How many of you use.....
Values Change….As Do Expectations…
Change is Inevitable; Innovation is no Different

The business landscape is littered with companies that failed because they didn’t innovate.
Technology is Driving Innovation and Disruption
Aging Society:
- Increased longevity
- Higher acuity
- Cognitive Impairment
- "Aging in Place"
- Disparate Families

Shortages:
- Geriatricians
- RN / PT / OT
- Caregivers
- Social workers
- LTC beds
- HCBS

Changing Economics:
- Accountable Care
- Non-profit funding crunch
- Funding / reimbursement cuts
Technology Adoption Rates

![Graph of technology adoption rates](image-url)

- **Mobile phone**: 100% adoption in about 25 years
- **Color TV**: 90% adoption in about 30 years
- **PC2**: 80% adoption in about 40 years
- **Internet**: 70% adoption in about 50 years
- **Dishwasher**: 60% adoption in about 60 years
- **Clothes Washer**: 50% adoption in about 70 years
- **Auto**: 40% adoption in about 80 years
- **Telephone**: 30% adoption in about 90 years
- **Video Calling**: 19% adoption in 85 years
The evolution of technology adoption and usage

% of U.S. adults who ...

Source: Surveys conducted 2000–2016. Internet use figures based on pooled analysis of all surveys conducted during each calendar year.
Millennials lead on some technology adoption measures, but Boomers and Gen Xers are also heavy adopters

% of U.S. adults in each generation who say they ...

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**Own a smartphone**

- **Millennial**
  - Born 1981-96
  - 92%
- **Gen X**
  - Born 1965-80
  - 85%
- **Boomer**
  - Born 1946-64
  - 67%
- **Silent**
  - Born 1945 and earlier
  - 30%

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**Own a tablet computer**

- 2010: 45
- 2013: 34
- 2018: 25

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**Use social media**

- 2005: 81
- 2008: 75
- 2018: 85

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Source: Survey conducted Jan. 3-10, 2018. Trend data are from previous Pew Research Center surveys.

PEW RESEARCH CENTER
Who’s not online in 2019?

% of U.S. adults who say they do not use the internet

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. adults</td>
<td>10%</td>
</tr>
<tr>
<td>Men</td>
<td>10</td>
</tr>
<tr>
<td>Women</td>
<td>9</td>
</tr>
<tr>
<td>White</td>
<td>8</td>
</tr>
<tr>
<td>Black</td>
<td>15</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than HS</td>
<td>29</td>
</tr>
<tr>
<td>High school</td>
<td>16</td>
</tr>
<tr>
<td>Some college</td>
<td>5</td>
</tr>
<tr>
<td>College+</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>9</td>
</tr>
<tr>
<td>Suburban</td>
<td>6</td>
</tr>
<tr>
<td>Rural</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: Whites and blacks include only non-Hispanics. Hispanics are of any race.

PEW RESEARCH CENTER
Who’s Not Online

1. **Age**: If you’re an older American you’re much less likely to use the internet than a younger person. Overall, adults ages 65 and older account for almost half (49%) of non-internet users by age group.

2. **Income and educational attainment**: If you have a college degree or live in a high income household, you’re much more likely to use the internet. Only 4% of college graduates do not use the internet compared with 41% of those without a high school degree.

3. **Community type**: If you live in a rural area (with limited broadband access) you’re less likely to use the internet than an urban or suburban resident: 20% of rural residents are offline, compared with 14% of both urban and suburban residents.

4. **Disability**: The disabled are consistently less likely to use the internet: 46% of adults with a disability do not use the internet, according to a 2011 report.

5. When asked why they do not use the internet:
   - 1/3 of offline adults say the internet just isn’t relevant to their lives
   - 1/3 cited “usability” issues such as their discomfort with computers
   - 1/5 cited price issue
   - and a smaller group cited lack of access.
TECHNOLOGY WHEN YOU WANT IT.

PEOPLE WHEN YOU DON'T.
Information Seeking Behavior
Mobile and Home Internet Users Top Wish List for Aids in Getting Information

- An unlimited data plan for their cellphone*: 50%
- More reliable home internet service**: 48%
- More people in their circle of family and friends who are knowledgeable about the issues they need to keep up with: 37%
- Training on how to use online resources to find trustworthy information: 31%
- Training that would help them be more confident in using computers, smartphones and the internet: 28%
- A public library closer to their home: 25%
- Expanded hours of operation for their local public library: 22%

Not too much:
- An unlimited data plan for their cellphone*: 19%
- More reliable home internet service**: 10%
- More people in their circle of family and friends who are knowledgeable about the issues they need to keep up with: 36%
- Training on how to use online resources to find trustworthy information: 12%
- Training that would help them be more confident in using computers, smartphones and the internet: 15%
- A public library closer to their home: 22%
- Expanded hours of operation for their local public library: 20%
A Word about Libraries and other Local Resources

• There are large differences about the value of libraries by race and educational attainment
  - Blacks and Hispanics are more likely than whites to see benefits in having a library nearby and having better library hours.

• The role of close family and friends is also important in guiding people to information that can assist in decision-making.
  - 74% of respondents say having more people in their social circles with knowledge of key issues would help at least somewhat in decision-making
  - 37% say this would help a lot
Libraries Still Seen as a Source of Reliable Information

Millennials more likely than older generations to say libraries help them find trustworthy information, learn new things and make informed decisions

% of adults who say they think the public library helps them ...

<table>
<thead>
<tr>
<th></th>
<th>Find information that is trustworthy and reliable</th>
<th>Learn new things</th>
<th>Get information that helps them with decisions they have to make</th>
</tr>
</thead>
<tbody>
<tr>
<td>All U.S. adults</td>
<td>78%</td>
<td>76%</td>
<td>56%</td>
</tr>
<tr>
<td>Millennials (18-35)</td>
<td>87%</td>
<td>85%</td>
<td>63%</td>
</tr>
<tr>
<td>Gen X (36-51)</td>
<td>77%</td>
<td>76%</td>
<td>54%</td>
</tr>
<tr>
<td>Boomers (52-70)</td>
<td>74%</td>
<td>72%</td>
<td>55%</td>
</tr>
<tr>
<td>Silent (71-88)</td>
<td>68%</td>
<td>65%</td>
<td>48%</td>
</tr>
</tbody>
</table>
Libraries Still Seen as a Source of Reliable Information

- 61% of Adults say they would be helped at least somewhat in making decisions if they got training on how to find trustworthy information online (2016)

- 78% of Adults feel that public libraries help them find information that is trustworthy and reliable
  - 76% say libraries help them learn new things.
  - 56% believe libraries help them get information that aids with decisions making

- Across the board, Millennials (those ages 18 to 35 in 2016) stand out as the most ardent library fans.
20% of YouTube users say the site is very important for helping them understand things that are happening around the world.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very</th>
<th>Somewhat</th>
<th>Not Very</th>
<th>Not at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figuring out how to do things they haven't done before</td>
<td>51</td>
<td>35</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Just passing the time</td>
<td>28</td>
<td>40</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Deciding whether to buy a particular product or not</td>
<td>19</td>
<td>36</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Understanding things happening in the world</td>
<td>19</td>
<td>34</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>
Information Overload

• People with less access to the internet are more likely to:
  - express concerns about information overload
  - report difficulty in finding information they need.

• Almost half of adults report that institutions (schools, banks or government agencies) that require them to bring a lot of information with them causes them worry and stress. The express that:
  - It’s burdensome to keep track of the volume of information needed
  - Trying keeping track of information is stressful

• Information overload seems to be situational; when institutions impose high information demands on people for transactions, that create a sense of information burden for some Americans.
Apps and websites cannot replace the communities that have always connected and supported us, but they can help diverse and dispersed groups coordinate care in unprecedented ways.

— GINA NEFF, AN ASSOCIATE PROFESSOR AND SENIOR RESEARCH FELLOW AT THE OXFORD INTERNET INSTITUTE
Streamlining Access to Information, Services and Resources
Typical Uncoordinated Health and Long-Term Care State System

- Doctor
- Hospital
- ER
- I&R Agency
- Family Care
- Self Care
- Behavioral
- Long Term Care
- Community Based Care
Government Led Initiatives

• Aging and Disability Resource Centers
• No Wrong Door
• Single Entry Points
• System Integration Initiatives
• Balancing Incenting Programs
• Integrated Eligibility Systems
• Health Information Networks
• Electronic Health Records
• TEFT
What Do These Initiatives Look Like?
IR Agency

BH / DD
State Programs
CBOs
AAA
Hospitals
Housing
Centers for Independent Living
Nursing Homes
Family Services
Protective Services
Long Term Care Ombudsman Program
Caregiver Support
Employment
All That You Imagined…and Less

- Most Initiatives suffered from lack of:
  - Interagency Coordination
  - Data Sharing Agreements
  - Understanding about Roles and Goals
  - Privacy (State, Federal)
  - Disparate Data Platforms

- Many still struggle with developing agreements with non-state entities because of “legal” and other risks
  - Minimum necessary information
  - Inadequate security (or inability to demonstrate sufficient security)
  - Insufficient Funding
Data and Agency Interoperability
<table>
<thead>
<tr>
<th>Information and Referral</th>
<th>211</th>
<th>AAA/ADRC</th>
<th>CILS</th>
<th>BH</th>
<th>Voc Rehab</th>
<th>Com Affairs</th>
<th>Family Services</th>
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</thead>
<tbody>
<tr>
<td>supplemental food and nutrition programs</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>shelter and housing options and utilities assistance</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<td>emergency information and disaster relief</td>
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<td>X</td>
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<td>employment and education opportunities</td>
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<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>services for veterans</td>
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<td></td>
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<tr>
<td>health care, vaccination and health epidemic information</td>
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<td>X</td>
<td></td>
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<td>addiction prevention and rehabilitation programs</td>
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<td>X</td>
<td></td>
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<tr>
<td>reentry help for ex-offenders</td>
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<td></td>
<td></td>
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<tr>
<td>support groups for individuals with mental illnesses or special needs</td>
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<td>X</td>
<td>X</td>
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<td></td>
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<tr>
<td>a safe, confidential path out of physical and/or emotional domestic abuse</td>
<td>X</td>
<td>X</td>
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</tr>
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</table>
AIRS Recommends Open Referral’s HSDS for Resource Database Interoperability

• Easier for I&Rs to establish data partnerships with other healthcare providers

• Reduce duplication of state and national records; decreasing burden to maintain records

• Allowing data to be accessible in different locations/applications

• Create additional value in having more comprehensive data across locals.
Potential Opportunities for Interagency Interoperability

• Fast Healthcare Interoperability Resources (FHIR)

• Health Level Seven International (HL7)

• TEFT Personal Health Record (PHR)

• TEFT Electronic Long-Term Services and Supports Service Plan Standard (eLTSS)
Goals of Interagency Data Sharing and Interoperability

• Expand Information, Referral & Awareness Relationships
• Connect with Options Counseling & Assistance Providers
• Streamlined Eligibility Determination
• Person-Centered Planning and Goal Setting
• Provide Information/Support to People Experiencing Transitions of Care
• Serve More Consumer Populations, Partnerships & Stakeholders
• Quality Assurance and Continuous Improvement
• Better Insight and Analytics

Simplify Access to and Understanding of State, Federal and Community Resources
Interconnection of Data, Information and Health

- CBOs, (Area Agencies on Aging, Centers for Independent Living, 211, ADRC) tend to serve the most socially vulnerable
  - Likely qualify for several state and/or federal programs
  - Is living with, or at risk for, chronic disease
  - Many of the needs the CBOs seek to identify resources have the potential to maintain and/or improve health
  - Connecting quickly and accurately to the right resources has the potential:
    - to create savings through better healthcare utilization (avoidance of ER, 911)
    - To save agency resources (staff and financial)
    - To reduce time spent on information seeking by consumers
TECHNOLOGY
WHEN YOU WANT IT.

PEOPLE
WHEN YOU DON'T.

YOUR LIFE
YOUR CHOICE
The insidious belief that we should always be available, always ready to answer questions for anyone about anything, is one of the most highly detrimental changes that I have seen.

— JENNIFER DEWINTER, AN ASSOCIATE PROFESSOR OF RHETORIC AND A DIRECTOR OF INTERACTIVE MEDIA AND GAME DEVELOPMENT

PEW RESEARCH CENTER
Potential New Market Opportunities Thru Interoperability

- State Agencies (Medicaid, Family Services, Voc Rehab, etc)
- MLTSS Plans (United, Centene, Blue Cross, etc)
- MLTSS Plans aligned with Medicare Advantage
- Dual eligible special needs plans
- Chronic Condition SNP (C-SNP)
- Dual Eligible SNP (D-SNP)
- Fully integrated dual eligible special needs plans (FIDE-SNPs)
- Medicare Advantage (Expansion of benefits to LTSS through Chronic Care Act)
- Conflict Free Case Management Systems
- Critical Incident Management Systems
- Community Partners for Medicaid/Family Services
- Private Pay Care Coordination
How does the Tale end?
Technology and People

Meet Brittany

I am a NON Smoking young lady who has over 3 years experience cleaning residential and commercial properties. I am a very thorough cleaner. I have cleaned all shapes and sizes. One time or all the time, There is no job too BIG or too small, Please contact me for availability and references. I look forward to working with you and making your house shine!

- Comfortable with pets
- Has Transportation
- Provides cleaning supplies
- Non smoker
- Willing to travel 25 mi
- Provides cleaning equipment

Brittany W.  PREMIUM

** 5.0 (12)

$20 – 30/hr  •  Mandeville, LA
Cared for 1 family  •  5 yrs exp

Join to contact
How does the tale end?

Do you usually wash Laundry? Was that included in your price?

Thank you, but I know that takes extra time.

I washed it for her and her dishes. It doesn't bother me to do it so i did and will if she wants me to continue.

Oh I'm sure she would love you too! She was very happy. If it helps, you don't have to mop every time you are there to balance it out.

Are still ok going weekly?

Yes sir i was going weekly. And im not trying to be mean or anything but i would have to mop every time because when she uses the restroom it moves with her on the floor. If you know what i mean.

Thanks.... Although she was a day early to! She can be pretty lazy, so if it seems like there are some things she could be doing, but isn't, bc you are coming, let me know! Lol.

Yeah i just been doing everything she stopped doing everything except putting most things in the trash.

Ok... I'll talk to her. She needs to keep moving... And doing the small chores helps....

Got started a little bit then remembered to record it. I got her a new pillow so thats why the other one is thrown away.
TECHNOLOGY WHEN YOU WANT IT.

PEOPLE WHEN YOU DON'T

Jay Bulot, PhD
Gerontologist, VP of State Markets
WellSky Corp.
Jay.Bulot@WellSky.com
678.431.6241
End