Preparing for the Future of Health Care Trends: Innovations and Navigating Generations

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Creative Director, Health Imagination

Blogger

Artist

A Little About Me . . .
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- Heath Care
- Technology
- Art
- Human Behavior
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About Me
User Experience
Behavioral Economics
The Internet of Things
Advertising
Health Care
Gamification
Technology
Graphic Design
Social Media
Consumer Trends
Big Data
Health Imagination
Ten things to think about for 2014 and beyond
1. Four Generations In the Work Place
Baby Boomers!

76M-79M
How many of you are in the audience?

The incendiary topics faced by boomers—the Vietnam War, civil rights, women's liberation, sexual freedom and drugs—divided the generation and its legacy.
How many of you are in the audience?

“Generation X was also the first group of young people to challenge the long-held belief that each generation is destined to be better off than the one preceding it.”
Gen Y
80M-90M
How many of you are in the audience?

"They're young, smart, brash. They may wear flip-flops to the office or listen to iPods at their desk. They want to work, but they don't want work to be their life."
I’m Gen Y...

- $21K average personal debt; $1 trillion in student debt
- 3 in 10 live at home
- American college students scored 30% higher on the 40-item Narcissistic Personality Index in 2006 than in 1979
- 75% of managers report Gen Y’s wearing inappropriate clothing to an interview
- 8% of recent college grads brought their parents along to an interview (Wall Street Journal); 3% actually sit in
- Gen Ys stay at a job for 2 years on average, compared with 5 years for Gen X and 7 years for baby boomers (Gen Y Branding)
- It costs an average of $24,000 to replace each Gen Y employee (Microsoft/Experience, Inc.)
- By 2020, we’ll make up 50% of your workforce (15% of us are managers already)
- 4% of 12-to 17-year-olds and more than 6% of 18- to 39-year-olds taking antidepressants CDC, 2005 -2008)
Gen Z
TBD
How many of you are in the audience? Hello?

“
The least likely to believe that there is such a thing as the American Dream and the first to have a shorter life span than their parents”
These events have all shaped us differently
Microsegments Matter

Younger Years, Striving Singles
Mature Years, Affluent Empty Nests

Younger Years, Midlife Success
Family Life, Young Accumulators

Family Life, Mainstream Families
Younger Years, Young Achievers

There Are Over 35 Segments
Emerging Benefits Design

- We see employers strategizing based on targeted populations

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Targeted Population</th>
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<tbody>
<tr>
<td><strong>Work/Life</strong></td>
<td></td>
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<tr>
<td>Hospice Support for family members</td>
<td>All</td>
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<tr>
<td>Extension of FMLA/Bereavement LOA</td>
<td>All</td>
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<tr>
<td>Flexible work options</td>
<td>Gen X, Millennials</td>
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<tr>
<td>Stress reduction</td>
<td>All</td>
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<tr>
<td>Summer hours</td>
<td>Gen X, Millennials</td>
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<tr>
<td><strong>Education</strong></td>
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<tr>
<td>Financial planning for college</td>
<td>Gen X</td>
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<td>College education - 529 Plan</td>
<td>Gen X</td>
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<tr>
<td>Scholarship program</td>
<td>Gen X</td>
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<td>Read to children program: Tutor STEM program</td>
<td>Gen X</td>
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<td>Career advancement counseling</td>
<td>Gen X</td>
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<td><strong>Employee Engagement/Morale</strong></td>
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<td>Wellness room/nap area</td>
<td>Gen X, Millennials</td>
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<td>Local music/entertainment groups at lunch</td>
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<td>Employer night at local events (fine arts, sports, etc.)</td>
<td>Gen X, Baby Boomers</td>
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<td>Travel with CEO for a day</td>
<td>All</td>
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<td>Peer-to-Peer recognition program</td>
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<td><strong>Discounts/Subsidies</strong></td>
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<td>Gym memberships</td>
<td>All</td>
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<td>Living Social/Groupon</td>
<td>Gen X, Millennials</td>
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<td>Subsidized cafeteria</td>
<td>All</td>
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<td>Voice and data plans</td>
<td>All</td>
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<tr>
<td>Toastmaster Toastmaster</td>
<td>All</td>
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<td><strong>Other</strong></td>
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<td>Concierge services</td>
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<td>Financial planning</td>
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<td>Personal life coach</td>
<td>Millennials</td>
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<td>Travel benefits (spouse/dependent travel with employee)</td>
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<td>Voluntary benefits (critical illness, accident, legal, identity theft)</td>
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</tr>
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</table>
2. 7 Pillars of Well-being
Physical Health

Both 90 Day Challenges

Proud Pescatarian
Mental Health

Daily Challenge
Financial Health

Weekly Challenge
Community Health

Daily Challenge
Personal Growth/Hobbies

Daily Challenge
Professional Health

Daily Challenge
Food
- Meals (breakfast, lunch, dinner)
- Snacks and beverages

Family
- Stipends (baby cash, adoption assistance, daycare)
- Leaves
- Family events
- Pets

Convenience
- Laundry and dry cleaning
- Personal care (haircuts, grooming, hygiene)
- Car and bike services (car wash, bike repair)
- Banking
- Travel services
- House cleaning

Education
- Stipends (tuition reimbursement)
- Training
- Educational sabbatical
- Onsite lectures and thought leader seminars

Service
- Community service
- Matching gift
- Corporate gifts

Wellness
- Onsite fitness (gym, yoga, running trails, boot camp, rock climbing wall)
- Stipends (gym, fitness classes)
- Discounts (gym, fitness classes, gear, massage)
- Onsite medical and wellness
- Flexible work schedule

Commuter
- Onsite parking
- Subsidies (parking, public transport systems)
- Company shuttles and other transportation (bikes, rental cars, car purchase assistance)

Entertainment
- Games
- Sports
- Scooters and bikes

Shopping
- Discounts and affinity programs
- Onsite store

Technology
- Mobile devices and computers
- Internet service
- Tech support
3. We’re Highly Irrational Individuals
## Engagement Strategy Cheat Sheet

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<td>User Generated Content</td>
<td>We more readily buy into content created by other participants</td>
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**Epic Meaning**
We are highly motivated to achieve something great.

**Blissful Productivity**
We are happier working hard at a fun game than relaxing.

**Collecting**
People like to amass units that add to or complete a set.

**Set Completion**
The closer a collection is to being complete, the more we desire.

**Variable Rewards**
Random rewards seem scarce and unpredictable.

**Lottery**
Chance creates a high level of anticipation through chance.

**Virtual Items**
Digital rewards, objects that can be little-to-no cost.

**Epic Meaning**
We are highly motivated to achieve something great.

**Blissful Productivity**
We are happier working hard at a fun game than relaxing.

**Fairness**
We dislike any game play that appears unfair.

**Tokens/Badges**
We enjoy these virtual rewards if they tie back to status.

**Status Quo/Default Bias**
We tend not to change an established behavior.

**Familiarity Bias**
We have a preference for things that are familiar.

**Ownership Bias**
We value things more when we feel like we own them.

**Anchoring**
We rely too heavily on an anchor (e.g., regular price vs. sale).

**Status**
We assess our standing relative to others and our personal best.

**Social Fabric**
We like people more after we’ve played games with them.

**Communal Discovery**
When an entire community works together, it is viral, fun.

**Loyalty**
Positive sustained connection leads to a sense of ownership.

**User Generated Content**
We more readily buy into content created by other participants.

**Delighters**
We fondly remember unexpected, playful pleasures.

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Positive sustained connection leads to a sense of ownership.

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**Curiosity**
When teased with a small bit of info, we will want to know more.

**Connectedness**
Uniform visual properties create a sense of belonging.

**Sensory Appeal**
We engage, remember things that appeal to multiple senses.

**Serial Position Effect**
We remember the first and last items in a list.

**Pattern Recognition**
We seek ways to organize and simplify complex information.

**Visual Imagery**
Vision trumps all other senses; direct way to perception.

**Aesthetic Usability**
Aesthetically pleasing designs are perceived as being easier to use.

**Proximity**
Things physically close to one another are perceived as being easier to use.

**Affect Heuristic**
Our current emotions influence our judgment, decisions.

**Delighters**
We fondly remember unexpected, playful pleasures.

**Loyalty**
Positive sustained connection leads to a sense of ownership.

**User Generated Content**
We more readily buy into content created by other participants.

**Privacy**
Keeping info private can be a demotivator or motivator.
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<td>Time constraints increase the likelihood for action</td>
<td>People like to amass units that add to or complete a set</td>
<td>Choices are easier to make when there are fewer options</td>
<td>We desire things perceived as exclusive</td>
<td>Funny items are more easily remembered and enjoyed</td>
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<td>Real time information satisfies instant gratification</td>
<td>Recurring events create sustained interest, anticipation</td>
<td>The closer a collection is to being complete, the more we desire</td>
<td>We crave certainty and uncertainty is an obstacle to action</td>
<td>We learn by modeling our behavior after others</td>
<td>We follow others when new situations peak</td>
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<td>We judge experiences by peaks (good and bad) &amp; how they ended</td>
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<td>We feel lucky getting something from someone else’s work</td>
<td>We take action when complex activities are broken into chunks</td>
<td>Random rewards seem scarce and unpredictable</td>
<td>We hate losing or letting go of what we have (or could have)</td>
<td>We follow others when new situations end</td>
<td>We seek ways to organize and simplify complex information</td>
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<td>Trigger</td>
<td>Lottery</td>
<td>Story</td>
<td>Our behaviors are shaped through real or imagined stories</td>
<td>Gift Giving</td>
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<td>We perform best when challenged at the right level</td>
<td>We take action when small nudges are placed in our path</td>
<td>Chance creates a high level of anticipation through chance</td>
<td>Gifting</td>
<td>We feel the need to reciprocate when we receive a gift</td>
<td>Expression</td>
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<td>Incentives can remove the true enjoyment or value of game play</td>
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<td>We enjoy rewards to status</td>
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**Gifting**

We feel the need to reciprocate when we receive a gift
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<td>Limited Access</td>
<td>Humor</td>
<td>Sensory Appeal</td>
</tr>
<tr>
<td>We are happier working hard at a fun game than relaxing</td>
<td>Time constraints increase the likelihood for action</td>
<td>People like to amass units that add to or complete a set</td>
<td>Choices are easier to make when there are fewer options</td>
<td>We desire things perceived as exclusive</td>
<td>Funny items are more easily remembered and enjoyed</td>
<td>We engage, remember things that appeal to multiple senses</td>
</tr>
<tr>
<td>Real-time feedback</td>
<td>Periodic Events</td>
<td>Set Completion</td>
<td>Certainty</td>
<td>Positive Mimicry</td>
<td>Surprise</td>
<td>Serial Position Effect</td>
</tr>
<tr>
<td>Real-time information satisfies instant gratification</td>
<td>Recurring events create sustained interest, anticipation</td>
<td>The closer a collection is to being complete, the more we desire</td>
<td>We crave certainty and uncertainty is an obstacle to action</td>
<td>We learn by modeling our behavior after others</td>
<td>Our brains are aroused by new and unexpected discoveries</td>
<td>We remember the first and last items in a list</td>
</tr>
<tr>
<td>Free Lunch</td>
<td>Chunks</td>
<td>Variable Rewards</td>
<td>Loss Aversion</td>
<td>Social Proof</td>
<td>Peak End Rule</td>
<td>Pattern Recognition</td>
</tr>
<tr>
<td>We feel lucky getting something from someone else's work</td>
<td>We take action when complex activities are broken into chunks</td>
<td>Random rewards seem scarce and unpredictable</td>
<td>We hate losing or letting go of what we have (or could have)</td>
<td>We follow others when in new situations</td>
<td>We judge experiences by peaks (good and bad) &amp; how they ended</td>
<td>We seek ways to organize and simplify complex information</td>
</tr>
<tr>
<td>Appropriate Challenge</td>
<td>Triggers</td>
<td>Lottery</td>
<td>Story</td>
<td>Gifting</td>
<td>Self Expression</td>
<td>Visual Imagery</td>
</tr>
<tr>
<td>We perform best when challenged at the right level</td>
<td>We take action when small rewards are placed in our path</td>
<td>Chance creates a high level of anticipation through chance</td>
<td>Our decisions are shaped through real or imagined stories</td>
<td>We feel the need to reciprocate when we receive a gift</td>
<td>We seek ways to express our ideas, personality, feelings,</td>
<td>Vision trumps all other senses, perfect way to perception</td>
</tr>
<tr>
<td>Moral Hazard</td>
<td>Triggers</td>
<td>Lottery</td>
<td>Story</td>
<td>Gifting</td>
<td>Self Expression</td>
<td>Aesthetic Usability</td>
</tr>
<tr>
<td>Incentives can remove the true enjoyment or value of game play</td>
<td>We take action when small rewards are placed in our path</td>
<td>Chance creates a high level of anticipation through chance</td>
<td>Our decisions are shaped through real or imagined stories</td>
<td>We feel the need to reciprocate when we receive a gift</td>
<td>Aesthetically pleasing designs are perceived as being easier to use</td>
<td>Aesthetically pleasing designs are perceived as being easier to use</td>
</tr>
<tr>
<td>Fairness</td>
<td>We dislike any game play that appears unfair</td>
<td>We dislike any game play that appears unfair</td>
<td>We dislike any game play that appears unfair</td>
<td>We dislike any game play that appears unfair</td>
<td>We dislike any game play that appears unfair</td>
<td>Proximity</td>
</tr>
</tbody>
</table>

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**Some Examples Incorporate Many Cheats Without Us Realizing It**

![Image of sandwich with text: Buy 10 Sandwiches, Get 1 Free](costello-sandwich.png)

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8A-36
But, Isn’t This Manipulative?
4. Create an Experience That Employees Will Love
We Make Time for Experiences That Delight Us

Barriers are everywhere . . .

1. It’s difficult to find the time
2. It costs too much
3. Never occurred to me
4. Not really interested
5. I might feel uncomfortable or out of place
6. I wouldn’t enjoy it
7. Lack of transport/I can’t easily get to it
8. Not enough information on what is available

. . . but, we make time for experiences that delight us

Examples are not just digital but real-world and physical as well.
Our World Is Rapidly Changing

- Dropbox
- Tumblr
- Kickstarter
- SurveyMonkey
- Square
- Redfin
- Gilt
- eHarmony
- Twitter
- Etsy
- Evernote
- Klout
- Craigslist
- Rovio
- Airbnb
- Spotify
- Eventbrite
- Hulu
- LivingSocial
Net Promoter Scores

Apple
- Computer Hardware: 30%
- Industry Average: 71%
- NPS "Star": 49%

Trader Joes
- Grocery: 49%
- Online Shopping: 73%
- NPS "Star": 76%

Amazon
- Online Shopping: 76%

Kaiser
- Health Care: 33%
- NPS "Star": 4%
Engagement + Delight = Enlightenment
To This:
5. Create an Experience That (Some) Employees Will Hate
6. Think About Ways to Hack Health
Sitting Is the New Smoking

Sitting increases risk of death up to 40%

Sitting 6+ hours per day makes you up to 40% likelier to die within 15 years than someone who sits less than 3. Even if you exercise.

Average Physical Activity (Waking Hours):
- Sedentary
- Low-Intensity Physical Activity (Walking, Standing)
- Medium-Vigorous Physical Activity (Running, Sports)

Studies show that only reducing sitting time helps. It's clear that sitting is killing us: but how?
Stress Is the New Fat

Who here has little-to-no stress? Medium level? A lot?
Achieving Good Health Should Be a Side Effect
Trending hacks

7. Gamification
8. Social
9. Mobile/Trackers/Apps
7. Gamification

- Incentives
- Badges
- Levels
- Raffle
- Challenges
- Points
- Adventure
- Winners
Gamification Is Like Bacon
(it doesn’t automatically make everything better)
But Sometimes It Works . . .
## Incorporating Sophisticated Game Elements

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>&lt;7,000 steps/day:</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>7,000-12,000:</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>12,000-20,000:</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>20,000+:</td>
<td>100</td>
</tr>
<tr>
<td>Weekly</td>
<td>Team challenges</td>
<td>100</td>
</tr>
<tr>
<td>Monthly</td>
<td>Ideal BMI</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Ideal Blood Pressure</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Ideal % Body Fat</td>
<td>150</td>
</tr>
<tr>
<td>Anually</td>
<td>Tobacco-free</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>HRA</td>
<td>500</td>
</tr>
</tbody>
</table>
Incorporating Sophisticated Game Elements

Q1 Physical

Q2 Mental

Q3 Financial

Q4 Community +Gamification! +Well-being!
But What Is the Science Behind Gamification?

Diagram showing dopamine levels over the stages of: Signal -> Work -> Reward.
But What Is the Science Behind Gamification?
8: Social Networks Create White Picket Fences
What We Share Depends on Who the Audience Is

1. Friends/Colleagues
2. Family
3. Mentors/Coaches
4. Providers

Our openness to share clinical, detailed or negative information depends on the social cluster.
Our Friends Influence Our Health...
... But Strangers Can as Well

+Gamification!
+Well-being!
+Social!
... And Strangers Who Are Friends?
9: Devices Are Everywhere!

(373 Digital health and fitness vendors @ CES)

+Gamification!
+Well-being!
+Social!
+Trackers!
Device Look and Feel Is Improving
Trackers Work, if You Remember Them
(here are my 16!)

*Can also be clipped onto a pocket or belt, but easier to lose there.
Trackers Do Work, if You Remember Them (here’s mine)
(... and Here’s my Friend Laura’s)
Trending Hacks

Social

Gamification

Trackers/Apps
Trending Hacks

Personal Connectivity

Mass Personalization

Gamification

Real-Time Feedback

Social Trackers/ Apps
Health Care Is Rapidly Changing
10: Creating an Ecosystem

- Gamification!
- Well-being!
- Social!
- Trackers!
- Ecosystem!
Not an Ecosystem, an Egosystem
In Closing, the Future is Exciting

Clockwise from top left:
1. Beam toothbrush
2. Zeo sleep monitor
3. Salinity Density spoon
4. Under Armour sensor-embedded shirts
5. Bike-powered workstation
6. QR code medical bracelet
7. Bayer Digit
8. Jerry the Bear

Daily Habits
Real-Time Feedback

For Children
Social/Community
The Future Is Scary

Clockwise from top left:
1. Cardiocam
2. E. Coli cell phone scanner
3. Microsoft Kinect for Autism detection
4. Proteus pill monitor
5. Vibrating tattoos
6. Center—UAV kit, Google Glass

Technology is not a silver bullet and may turn some users off
And What’s Next?

- **Crowdfunding**
  - Giveforward, YouCaring, Fundly, Consano
- **Personalized medicine**
  - Raregenomics, 23andMe, Genophen, N-of-One
- **Augmented Reality**
  - Google Glass, Gravity Jack, learning and development
- **Sharing Economy**
  - Cohealo, Floow2, Starfish Project, Afya Foundation, AirBNB for health care?, hospital device sharing
- **Holistic Health**
  - Mindfulness, resiliency, Eastern vs. Western perspectives
- **Sandwich Generation**
  - CaringBridge, A Place for Mom, Well Spouse, Caring.com
- **3-D Printing**
  - Prosthetics, hearing aids, dental, drugs, organ replacement (kidneys, glucose-sensitive pancreas diabetes treatment)
Remember, Think About . . .

- Navigating different generations
- Well-being
- Sitting is the new smoking
- Stress is the new fat
- Good health should be a side effect
- Experiences employees will love
- Gamification
- Social
- Mobile (apps/devices)
- Personal connectivity, mass personalization, real-time feedback
- Integrated ecosystems
Questions?