Finding the Near Term Safe Value Propositions

In this rapidly changing customer engagement and influence game

Joel Gilbert, P.E., President
APOGEE INTERACTIVE
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Quick Summary of Apogee

25 years in business

Serving 600+ utilities

“Apogee’s Customer Engagement Platform is the most comprehensive in the industry.

It reaches customers in so many ways by educating and providing personalized and meaningful information to change behavior while providing utility clients with business analytics to make good business decisions.”

Navigant 2015
Today’s Agenda: Find the Near Value

- Use billing histories and smart meter data if available.
- Find best candidate homes for HVAC upgrades?
- Identify home retrofit performance contract homes?
- Which homes are the best DR candidates?
- Who might pay extra for home monitoring services?
- How can these analytics be used to actively engage these consumers and produce value today?
Your Presenter Today: Joel Gilbert

BS and MS in Chemical Engineering
MS in Operations Research and Statistics
Rensselaer Polytechnic Institute
Licensed Professional Engineer

6 years nuclear attack submarine power plants
6 years at the Hospital Assoc. of NY State
6 years at MTI advance heat recovery systems
30 years serving the Energy Utility Industry
I Skate To Where The Puck Will Be, Not To Where It Is

Wayne Gretzky
What are your Company Goals Now?

• Improve EE and DR results
• Reduce Operating Costs
• Seek “Utility 2.0” Relationships
• Increase Customer Satisfaction
• Increase Revenues and Margins
Attitudes Matter
And Your Organization Matters

• Short term goals
• Senior Exec liaison
• Two Pizza Rule
• Short deadlines
• Avoid RFPs use RFIs
• Disband & restart
Digital Engagement Strategy Cycle

- Gain Attention w/ Personalization
  - Accurate savings predictions
  - Relevant to customer priorities
- Build Customer Trust Using
  - Choose the right channels and strategies
  - Personalized, Outbound, Proactive
  - Using Video where appropriate
- Choose the right channels and strategies
  - Use Weather Paradigm to deliver messaging
  - Mid-Cycle Bill Alerts proactive and relevant
- Engage & Educate
  - Provide Valuable & Relevant Messaging
  - Feedback assuring quality & effectiveness

- Feedback & Refinement

- Gain Attention w/ Personalization

- Build Trust

- Engage & Educate

- Provide Valuable & Relevant Messaging

- Feedback & Refinement
What is holding you back from this opportunity?

• Not sure where the opportunity is
• No budget for serious data warehouse capability
• No staff with skills or time availability
• Management is still not convinced of the business case
• All of the above
Stop Talking “Energy Speak”

Lesson: Don’t talk about kWh or therms, use dollars and degrees!
The search for Relevance

Why visit YOUR website?
The search for Relevance

Why visit YOUR website?

Think POP Messages:

• Personalized
• Outbound, and
• Proactive
Michael Wolf: “Everybody’s fighting for somebody’ else’s time.” The most fertile ground is the digital voice assistant found in smart speakers and smartphones.
Eco Bee and the Amazon Echo ("Alexa")

AI is here now in some forms
- Ask Alexa to "chat"
- Or, explain my bill
What can you do with Bills alone?

- Year long batch of bills with zip codes
- Correlate them against the local weather
- Extract the heating and cooling energy
- Filter out the anomalies (transients/rentals)
- Back infer the Tstats for heating and cooling
- Sift, sort and present in CDF formats
- Sift, sort and present in geospatial formats
Personal Video Messaging…Bill Explanation
SURVEY SAYS..

Sending monthly
- 46% Open Rate
- 30% Click-thru Rate
- 97% Easy to Understand
- 90+% Useful

Ideal Frequency
- 72% Monthly,
- 27% Quarterly
- 99%

1,000s wrote verbatims
99% extremely positive
Example Cooling Analysis Results

<table>
<thead>
<tr>
<th>Cooling Tstat Setpoint</th>
<th>Percent of Customers with that Tstat Temp or Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>~30% hold &lt; 72 F</td>
<td>Pick Customers with High AC Loads &amp; Low Temps</td>
</tr>
<tr>
<td>~15% hold 78 F</td>
<td></td>
</tr>
</tbody>
</table>

- ~30% hold < 72 F
- ~15% hold 78 F

Pick Customers with High AC Loads & Low Temps
Target Feeders/Substations
Example Cooling Analysis Results

Cooling

Tstat

Setpoint

~20% hold > 80 F

~15% hold 78 F

Percent of Customers with that Tstat Temp or Lower

Remote Monitoring?
Example Heating Analysis Results

~ 65% hold 68 F
Where are you in the process of actually using business analytics, artificial intelligence, and big data to enhance your business?

- Still evaluating the opportunity
- Building out the data warehouse and analytics approach
- Have our data analyzed and designing messages
- Conducting our first customer messaging trials
- Fully operational and getting results
Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.
Home Efficiency Rating

Energy Forecast

Congratulations! Your profile is complete.

Offer forecasts!

HOME EFFICIENCY RATING

EXPLAIN HOW MY RATING IS CALCULATED

33408 - NORTH PALM BEACH, FL

WEEKLY ELECTRIC ENERGY FORECAST

WEEKLY GAS FORECAST

WAYS TO SAVE
Proactive Alerts

80% Want Alerts

Check for alerts even when phone isn’t vibrating

67%

Sleep with their phones so to not miss alerts and calls

44%

Source: Pew Research Center 2015
ENERGY ALERTS

• Alerts based local weather, rates, and billing data
• Send mid-cycle email or text
• Customers set alert parameters
• Customers learn how:

Seasonal rate changes, weather, days in cycle affect bills

To avoid high bills *before* they happen
Customers can’t see prior owner’s bills ...

• But, they can be given home performance attributes
  • kWh per CDD and HDD – in a form they can use
  • Estimate of the operating efficiency of the home
  • Trends in energy use over the past few years
  • Comparison of that home to similar homes

• But we must Automate a Digital Dialogue
  • Conversation that resolves a question or solve a problem
  • Alexa … what can I do to save money
The House’s Journey & Experience (Birth through Death)

Birth
Speculative
Or Owner
Built 1970
Floor R
Wall R
Attic R
HVAC
Tstat
Water Htr
Fridge
Wash/Drier

1980
1990
2000
2010
2020

Home Sells to New Owners

TDSO
Speculative
Or Owner
Dies 2030
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Episodes catch Occupants by Surprise!

- Average American stays in any one home 13 years
- Assuming any one home persists for 50-100 years
- A home will see 3-8 owners in its lifetime
- The fact that the Air Conditioner is near End of Life
  - They are about to find out
  - You missed the critical opportunity to educate and engage
  - When the AC fails, the contractor will use warehouse engineering
- Whomever gets the customer’s trust wins
The House’s Journey & Experience (Birth through Death)

Birth
Speculative
Or Owner
Floor R
Wall R
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HVAC
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Water

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1980

1990

2000

2010

2020

TDSO
Speculative
Or Owner

2030
Automated Digital Dialogue

- Now the House Does the Talking using bills and bill histories
  - Trends in HVAC use, temperature settings, and plug load
  - Home transfer transaction Moment of Truth truly change things
- EKG-like diagnostics using Precision Temperature Monitoring
- Trend and alert HVAC, water heating, and envelope issues
- Engage daily with weather, trends, alerts, and alarms
- Broadcast seasonal changes with quarterly end reports
- Broadcast mid-cycle alerts with virtual prepay options
- Position your company as the trusted energy advisor
- Become the rightful arbiter of home performance
Result: New Engagement Paradigms

• Watch your own obsessions on this agenda
• Plan for new models of value delivery
• Think Uberization of business relationships
  • Ride once with Uber … you’ll never take a cab again!
  • AirBNB makes no sense … until you see how it works!
  • Traffic navigation with Waze … check it out
• You were worried about Comcast, AT&T, or NEST?
• Do you remember Abraham Lincoln’s quote here?
Show Senior Management Results!

• Improve EE and DR results
• Reduce Operating Costs
• Seek “Utility 2.0” Relationships
• Increase Customer Satisfaction
• Increase Revenues and Margins
• We have no specific goals yet
“But only the things left by those who hustle!”
Ample reasons today to act and improve the business:
- Print, call center costs, M&V, Free Ridership, Targeting
- Do nothing new and you become irrelevant!
- Lose relevance and …
Life is like a dogsled team.
If you ain’t the lead dog, the scenery never changes.

Lewis Grizzard
Interested? Want truly big ideas? Ready to change paradigms?

Contact us!