

## What is Convergence?

*We define convergence as the synergistic combination of formerly discrete digital technologies. This definition emphasizes the intent behind converged products—to offer complementary capabilities that, together, meet consumers' needs better than any single-function alternative.*

## Overview

When it comes to converged consumer technology offerings—products and services that expand options for accessing desired content and communications—what are the elements of a truly compelling user experience? How does that experience lead to loyalty and likelihood to recommend? What are the barriers to realizing a positive user experience, and how can they be overcome?

Those are the key questions we sought to answer through an online qualitative study conducted with U.S. residents in March 2011.

The study involved two online discussions, each held over three days, with consumers who had recently purchased a product in one of the following categories:

- **Video.** Research participants owned a device that enabled them to watch video from the Internet for personal entertainment.
  - ✓ Brands included Google TV, Apple TV, Slingbox, and other Internet-connected game consoles/handheld devices; smartphones; portable entertainment devices (iPod Touch, tablet PC); or desktop/laptop PCs for which video viewing was a major purchase driver.
- **Home Control.** Participants owned a home control or automation product (or combination of products) linking together security, locks, lighting or temperature control, coupled with access via the Internet.
  - ✓ Brands varied widely and included: ADT Pulse, Broadview, Control4, Crestron, HAI, HomeSeer, Honeywell, Leviton, Lutron, Insteon/SmartLinc, Logitech, MetaGeek Wi-Spy, Mi

Casa Verde Vera, Schlage and Xanboo. Many participants also used (or planned to use) Droid, iPhone/iPad and/or BlackBerry to monitor and/or control their systems.

- Each moderated online (text-based) discussion included earlier adopters, as well as several more mainstream consumers. While each discussion included fewer than 20 participants—and therefore the findings are not projectable to the wider U.S. consumer population in a statistical sense—the results offer compelling directional insights to inform future product development and research.
  - ✓ See Table 1 for a demographic profile of participants.
  - ✓ We prepped for our discussions using social media analytics to get a feel for related buzz and consumer sentiment.

Table 1. Research Participant Profile

	Video Group	Home Control Group
<b>Number of participants</b>	15	16
<b>Age</b>	Range: 23-49; Average: 33	Range: 24-54; Average: 40
<b>Gender</b>	7 females, 8 males	10 females, 6 males
<b>Children under 18 in household</b>	Yes: 8 No: 7	Yes: 13 No: 3
<b>Adopter type<sup>1</sup></b> (Earliest adopters at top)	Innovators: 6 Early Adopters: 5 Early Majority: 4	Innovators: 5 Early Adopters: 9 Early Majority: 2

This study investigates themes revealed during a quantitative web survey we conducted in 2009. That earlier study suggested that emotional benefits play a strong role in adoption. It also illustrated how ease-of-use, while not a strong driver of purchases on its own, is an absolute “must have,” or gating requirement, for the mass market.

Because both studies draw from (and build upon) existing diffusion of innovation theory, we present a brief discussion of relevant theories here to help set the stage for the research findings that follow.

<sup>1</sup> Segments used originally by Everett Rogers in *Diffusion of Innovations* and later by Geoffrey Moore in *Crossing the Chasm*. See discussion of these segments and related theory in the next section of this paper. For this study, participants self-identified their segment membership based on a short text description of each category.



## Theories of Diffusion of Innovation

We base our understanding of the success (or failure) of new product and service introductions on a framework that addresses:

- Characteristics of the successful innovations themselves.
- Mechanisms for spreading—or “diffusing”—adoption beyond initial buyers.

## Characteristics of successful innovations

Everett Rogers’ theory, first articulated in *Diffusion of Innovations* (1962), states that perceptions of an innovation along the following five dimensions affect adoption the most:

- **Relative advantage**—whether the innovation is better than existing alternatives.
- **Compatibility**—consistency with buyers’ existing values, experiences and needs.
- **Trialability**—availability of the innovation for short-term experimentation.
- **Observability**—whether results of adoption are visible to others.
- **Complexity**—difficulty with understanding and using the innovation.

This foundational research still holds up in today’s hyper-connected world; in fact, some scholars point out that the lightening-fast spread of new ideas and products via social media illustrates the power of Rogers’ notions of trialability and observability.

## Mechanisms for spreading (or inhibiting) adoption beyond initial buyers

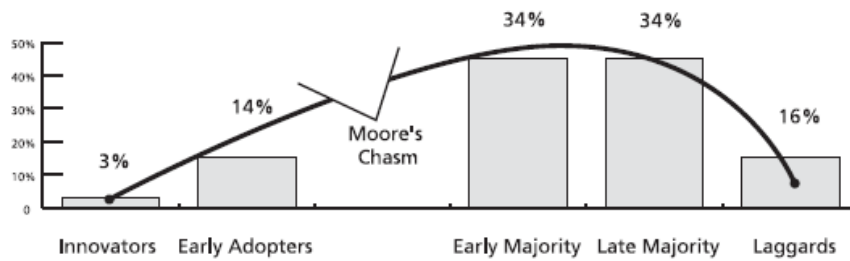
Rogers’ theory rests on the idea that “innovativeness” is a personal trait that is normally distributed among the population. Innovations diffuse through the market serially, moving from one group of adopters to another, thanks to opinion leaders who spread ideas through their communication networks.

Rogers says that opinion leaders are most effective in promoting adoption of an innovation by members of their network when they: 1) conform to group norms, 2) are technically competent, and 3) are socially accessible. And, he argues that differences between individuals along these three dimensions often provide roadblocks to communication, and therefore, to diffusion.

In *Crossing the Chasm* (1991), Geoffrey Moore uses Rogers’ model as a reference, emphasizing the chasm between early adopters and the early majority, that is, between those with a predisposition to acquire new products and the initial wave of mainstream consumers. See Figure 1.



Figure 1. Geoffrey Moore's Adoption Curve



SOURCE: MOORE, 1999

The chasm is attributed to different motivations for adoption—early adopters use new technologies to make radical changes from old systems to new ones, while members of the early majority adopt new technologies to make incremental improvements. Early adopters represent the group that must be won over in order for a product to have any chance of crossing Moore’s infamous chasm.

Robert Cialdini in his book, *Influence: The Psychology of Persuasion* (2007), argues that Innovators and Early Adopters are attracted to the notion of scarcity because they desire to possess things that others don’t. Later adopters, conversely, desire *social proof*; they want to have what others have—to belong. This sets up a tension between early and late adopters, who have vested interests in the other group not having what it wants.

Malcolm Gladwell, in his book *The Tipping Point* (2000), says new ideas can be transmitted by social influence by harnessing the “Law of the Few”—the natural inclinations of a minority of people who fall into the following three personality types:

- Connectors – The people who “know everybody.”
- Mavens – Information brokers who are trusted because they aim to teach, not to persuade.
- Salesmen – Perennial optimists who can’t help but talk you into joining them.

A June 2009 McKinsey Quarterly article, *The Consumer Decision Journey*, underscores the importance of engaging consumers inclined to share their opinions with others. The authors<sup>2</sup> argue that consumers exercise more control during the purchase consideration process now than in the past as they learn directly from actual customers via online reviews and other social exchanges. The article recommends shifting dollars spent on traditional “push” advertising into enhancing ways for buyers to learn via “pull” communications, including direct exchanges with loyal customers and compelling in-store experiences.

<sup>2</sup> David Court, Dave Elzinga, Susan Mulder, and Ole Jørgen Vetvik

Next, we'll reveal how these theories play out in our research, and offer some new insights to add to the theoretical mix.

## Research Findings

In comparing consumers who purchased video entertainment solutions to those who had purchased home control, we discovered the two realms have more in common than we originally expected. And the areas where they differ provide powerful clues to how perceptions can misalign with reality, providing barriers to adoption.

The following three key findings call out those similarities and differences, and their implications.

### Research Finding #1: Excitement about converged products is contagious

Much has been said recently about how the Internet has put power in the hands of the people—specifically, providing shoppers with unlimited opportunities to “pull” the kind of information they want from the sources they deem most credible. The old-fashioned “push” marketing and advertising model clearly has been forced to make way for this more dynamic environment. And our research certainly validates this finding; buyers of converged products do extensive online research, and put great stock in online reviews of knowledgeable end-users and other experts.

But we notice something else happening, too. It turns out manufacturers and retailers aren't the only ones “pushing” information out there. Some buyers of converged products are highly enthusiastic about their recent purchases—so much so, in some cases, that they tell anyone and everyone who will listen to them. These messages can be quite effective, stimulating sales within individuals' peer groups—and sometimes beyond.

Of course, this unsolicited social sharing is powerful in part because it comes from people who know

***This kind of social sharing also wields another key benefit—it provides a way for the uninitiated to quickly overcome their natural concerns about the complexity of converged products.***

what they are talking about, and have nothing to gain (financially) by telling others about it. But in our view, when it comes to stimulating interest in converged products, this kind of social sharing also wields another key benefit—it provides a way for the uninitiated to quickly overcome their natural

concerns about the complexity of converged offerings, and instead focus on what they have to gain.

As we'll see later in this paper, some consumers have a tendency to overestimate the risks of adopting new converged technology products. Getting an enthusiastic stamp of approval from a trusted peer is a “green light” to stop worrying about the “what ifs,” and focus on the possibilities.

Learning directly from someone who has already “been there” also has practical benefits. Would-be buyers can avoid the time and trouble of sifting through thousands of online search results that often lead to unfamiliar brands and highly technical documentation. The opportunity to get exposed to new products (sometimes via hands-on in-home demonstrations) and ask questions in layman’s terms without sales pressure can help transform casual observers into potential buyers. And the more converged or connected the solution, the more helpful this trusted advice can be.

Friends, family and neighbors also present the new product in a context that potential buyers can identify with. Consumers relate to their peers’ life stage needs and concerns, such as finding low-cost video entertainment of interest, staying on top of children’s activities, or adjusting to the empty nest. Plus, peers can be useful for convincing that reluctant spouse of the benefits of purchase.

Potential buyers learn not just about new products they might like; they also learn the best place to buy them. Those who go on to make purchases tend to extend the same high level of trust to their retailer or installer that they afford to the friend who referred them.

After purchase, these new buyers go on to share their experiences with others—both online and offline—repeating the cycle.





## Users talk about social influence

### Home Control

- “I think it is fun to show someone just how easy and nice lighting scene selection can be. Many people have not even thought of it. It is also fun to show someone how to adjust lighting from a remote control. That seems to really wow people.”
- “I have recommended both systems to a few neighbors (one who is installing it this month) and to every member of my family. My sister installed the system just about two months after we had ours installed, and she loves it too!”
- “I recommend my products to all co-workers, friends, family, church members, neighbors, mailman, etc.”
- “I have recommended it to my sister and a couple of neighbors. When they come and see it, they get really excited and want one also. I basically have people over to see it, and then send them to [my installer].”
- “I have told everyone I can think of, especially those I know who have kids.”

### Video

- “I have recommended them to my sibling, uncles, and friends and co-workers. We have a get-together or dinner so I can show them what I am using, and all the great things about it.”
- “I have recommended my video setup to several family members and friends. I usually tell them about it while they are watching a movie at my house.”
- “I often make recommendations on things and services which I like. Usually, I like to do it like a show, and tell guests about the new service or product I got, and all the bells and whistles that come with it. Sometimes I might mention it on Facebook in passing but do not really go all out and tell people to go and get one. I basically make recommendation simply to voice my opinion and if it is something really great, then others should know and try it out for themselves.”
- “I make recommendations all the time...Usually it's by phone call, in person, or maybe instant message that we talk about our gadgets. One of my friends even bought the same media player I have as a result. I don't usually post recommendations on Facebook or Twitter. When I make a recommendation usually it's because I achieved a great result and I want the people I care about to be able to achieve the same result.”
- “I post recommendations on Facebook, Twitter and blogs. I attach links and pictures for my recommendations when needed. I make recommendations because I like to share my opinion with others to help them make an informed decision.”



## Research Finding #2: Converged products can be surprisingly easy to set up and use

We were somewhat surprised to learn that setup and installation processes for converged products can be pain-free—and in some cases, even enjoyable. And we weren't the only ones surprised; users in our study—especially those with more complex setups—reported being pleasantly surprised (and relieved) that their installations went smoothly.

The study included both do-it-yourself installers (mainly for video) and those using professional installers (primarily for home control). Even the least technically inclined participants reported positive experiences getting up and running, despite the nagging worries they may have had about learning how to use their new products.

Indeed, for those who sailed through without a hitch, as well as those who encountered difficulty, setup

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and initial use are emotionally charged experiences, complete with high expectations, a relatively major commitment of time and money, and worry about the unknown. Therefore, both good and bad outcomes get magnified through this emotional lens. For the most complicated installations (mainly home control), people tended

to imagine the worst that might happen—making their positive experiences that much more satisfying.

Those who were most pleased enjoyed a quick setup process, without drama or awkwardness, followed by a guided first use experience that enabled them to confidently enjoy their new purchase right away.

**Table 2** outlines major points of satisfaction along the way from initial setup through early use.



Table 2. Ease-of-Use: Drivers & Enablers

Drivers of Ease-of-Use	Achieved by:
<b>Setup</b>	
<ul style="list-style-type: none"> <li>Fast, automatic, “plug-and-play” recognition and configuration of newly connected devices</li> </ul>	<ul style="list-style-type: none"> <li>Wireless connectivity</li> <li>Network ecosystems (via partner agreements and/or networking standards) that facilitate device linkages</li> </ul>
<ul style="list-style-type: none"> <li>Clear setup instructions</li> </ul>	<ul style="list-style-type: none"> <li>Step-by-step, well-written instructions with simple, helpful diagrams and other images</li> </ul>
<ul style="list-style-type: none"> <li>Familiar setup mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>Installation wizards</li> </ul>
<ul style="list-style-type: none"> <li>Reassurance of experts</li> </ul>	<ul style="list-style-type: none"> <li>Access to trusted human adviser, preferably available on-demand (esp. for home control)—tech support staff or knowledgeable friend or family member</li> <li>Online user forums</li> </ul>
<b>Initial Usage</b>	
<ul style="list-style-type: none"> <li>Immediate gratification – quickly experiencing product benefits</li> </ul>	<ul style="list-style-type: none"> <li>For complex setups, particularly home control: Lead users through hands-on exercises for typical usage scenarios immediately after setup is completed</li> </ul>
<ul style="list-style-type: none"> <li>Familiar control mechanisms that encourage exploration, shorten learning curve</li> </ul>	<ul style="list-style-type: none"> <li>Common consumer electronics interfaces, especially touch screens, common menu options and navigation</li> <li>Reduced number and/or complexity of remote control devices</li> </ul>
<ul style="list-style-type: none"> <li>Freedom from formerly manual, tedious processes</li> </ul>	<ul style="list-style-type: none"> <li><b>Video:</b> <ul style="list-style-type: none"> <li>Enhanced methods for finding content of interest, including:                             <ul style="list-style-type: none"> <li>Top-viewed or top-rated new releases or featured content (e.g., YouTube)</li> <li>Suggestions by type of content watched (e.g., Hulu, Netflix)</li> <li>Search by show/movie title</li> <li>Browse by genre (comedy, drama)</li> </ul> </li> </ul> </li> <li><b>Home Control:</b> Simplifying or automating routine tasks through scene setting, for example: simultaneously turning off lights, locking all doors and adjusting thermostat settings</li> </ul>

Of course, some users did have problems with setup and initial usage. But issues reported in our study were typically overcome without lasting ill effects, leaving users enthusiastic about their solutions despite the troubles they encountered.

Generally speaking, problems with setup usually could have been prevented with the right information up front. Those least satisfied after using their solutions are those who discover that, after all their

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effort, their solution doesn't really perform as they had hoped. For video, typically, this involves not having access to desired programming or other content due to digital rights management (DRM) limitations, or low quality of wireless streaming. On the home control

front, some are dissatisfied with sensor placement, saying they are not well hidden from view, or motion sensors are too easily tripped.

Key barriers reported, and solutions used (or desired) for overcoming them, are presented in **Table 3**.



Table 3. Ease-of-Use Barriers & Fixes

Barriers to Ease-of-Use	Overcome by:
<b>Setup</b>	
<ul style="list-style-type: none"> <li>• Costly trial-and-error due to ignoring manuals, or lack of (or faulty) documentation</li> </ul>	<ul style="list-style-type: none"> <li>• Online video tutorials</li> <li>• Stress importance of up-front prep for DIYers in Quick Start guides</li> </ul>
<ul style="list-style-type: none"> <li>• Lengthy installation time</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure DIY and professional installers are setup for success. Provide:               <ul style="list-style-type: none"> <li>✓ Guidelines for prepping for installation (for example, make sure correct cables and other materials are on hand, take all old locks off before installer arrives)</li> <li>✓ Shortcuts for customization – frequently used macros, planning guides for scene setting, etc.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Incorrect information provided by manufacturer (such as cables needed for particular set-top boxes; IR or RF codes for remote controls)</li> </ul>	<ul style="list-style-type: none"> <li>• Post installation information online for peer review (wiki-style)</li> </ul>
<b>Initial Usage</b>	
<ul style="list-style-type: none"> <li>• Lack of familiarity with features or user interfaces of this type; no frame of reference (esp. for home control)</li> <li>• Lack of information about system status (is it working as intended?)</li> </ul>	<ul style="list-style-type: none"> <li>• Have installer personally explain setup to homeowner during installation</li> <li>• Provide step-by-step video tutorials with overview of system</li> </ul>
<ul style="list-style-type: none"> <li>• Clunky control devices (e.g., remote controls for entering search terms)</li> </ul>	<ul style="list-style-type: none"> <li>• Allow use of touch-screen or keyboard devices, especially for data entry</li> <li>• For video, provide apps or other interface for simplified navigation on frequently-used sites (like YouTube)</li> </ul>
<ul style="list-style-type: none"> <li>• Feeling overwhelmed by having too much to learn at one time (features, commands, codes, passwords)</li> <li>• Imagining “worst-case scenarios” (like locking children out of house)</li> </ul>	<ul style="list-style-type: none"> <li>• Simplified control mechanisms, including macros to automate command sequences</li> <li>• Have expert proactively check in after first few days of use to address concerns/questions</li> <li>• Practice “drills” guided by expert</li> <li>• Online tutorials organized into short, discrete topics: “What if X happens?”</li> </ul>
<b>Later Usage</b>	
<ul style="list-style-type: none"> <li>• Need to fine-tune settings after using system for a while, but difficulty determining how to implement changes, concern about messing things up (primarily for home control)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide option for installer to return to fine-tune product settings several weeks post-installation</li> <li>• Push out e-mails to registered users a few weeks after purchase with hints for further customization</li> </ul>
<ul style="list-style-type: none"> <li>• Inability to achieve desired results               <ul style="list-style-type: none"> <li>✓ For video, this can be due to DRM-caused content limitations (lack of access to full-length or current episodes of favorite TV programs) or slow wireless streaming/download speeds</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Provide access to on-going information about newly available content and new features</li> <li>• Cross-promote with high-speed broadband and wireless routers</li> </ul>



## Users talk about ease of use: Set-up

### Video–Positive

- + “It was so easy to set up; we could watch something right away.”
- + “I was super excited that it was easy. My husband isn't a big fan of hard work after his 9-hour-a-day labor job!”
- + “This was the easiest setup we have done in a while. There were only two cords to attach, and the ease of on-screen setup was amazing!”
- + “I literally took the iPad out of the box and plugged it into my computer to my iTunes and was good to go.”
- + “Everything is so incredibly easy to set up these days. Basically everything is simply plug-and-play. Setting up a new TV basically entails plugging it in, hooking it up to the cable box (a cinch, as cable wire is already there), and programming the cable (favorite channels, color, brightness, etc.). With on-screen menus, setup takes no time at all.”

### Video–Negative

- “The cables for the TV were confusing. We were told that we had gotten cables for the cable box to make it ‘true HD,’ and we did not, so I had to go back to the retailer after calling the cable company.”
- “I dislike the function of the onscreen keyboard. You have to arrow through all the letters to sign in to your Netflix account, and it takes a while to get each letter in.”
- “The only troubling thing is that the contents of my DVR cannot be accessed by my media player. It can see the files, but it will not play them.”

### Home Control–Positive

- + “I was totally relaxed. The installers were very professional, as well as the employees that I talked to over the phone. It was a smooth process. Unlike my kitchen remodel!”
- + “I basically just sat back and let the installer do it, and felt very confident that it was done right.”
- + “Once we opened the products, we followed the manual step-by-step, and it helped us a lot in setting up.”
- + “I liked that the full user directions were shipped with everything, and they were actually easy to understand and follow.”
- + “I am now smarter with technology than I was before. I found out that even though I am old, I can still learn new things.”
- + “The thrill of seeing it set up and working was great.”

### Home Control–Negative

- “Alone, I had to try to imagine how I would use it, then program it, then see how I actually used it, and then reprogram it. I think that iteration loop was greater for me than it would have been with an installer.”
- “I was aggravated and upset that I couldn't use my system immediately. It wasn't a money factor—just the fact I had to wait another week when I was already pumped up. It was pretty easy to find the solution once I searched specifically on the problem; I got the information from an online forum.”



## Users talk about ease of use: Initial Usage

### Video–Positive

- + “I got lazier. LOL. That is, I started watching more movies on my Blu-ray and using the Internet connection to check Facebook and watch videos on Hulu, which meant more time on the couch. I was extremely satisfied when I began first using it.”
- + “I realized with my iPad that I could take it anywhere, and I loved that.”
- + “Immediately, it made video watching much more fun and simple. It helps me relax when I get home; I can just sit and watch whatever I want.”
- + “We were not tied down to the TV during certain times and dates, and we did not have to make sure that recordings were set...We could watch what we wanted, when we wanted, and in the manner we wanted, all with it being portable.”

### Video–Negative

- “I’m looking at the remote right now and I see, literally 62 buttons. RIDICULOUS, no? I have absolutely no idea what these buttons are for (even though I keep the remote instructions right next to the remote). I am so overwhelmed by this many buttons that I choose to instead ignore them completely. There are red buttons, blue buttons, green and grey buttons with the letters A, B, C, buttons with dots and dashes. YIKES!!!”
- “The remote control on my media player is hard to use. When I want to type on YouTube it takes forever. I also wish there was a way to visit other video websites using this media player instead of being limited to the select view preloaded on the device firmware.”
- “The challenges are the slow download or buffering times, and being able to find full episodes of certain shows in high quality sound and audio.”

### Home Control–Positive

- + “Our household members were easily able to interact with the control panels placed around the house to control lighting scenes.”
- + “It made life easier and I also felt happier when I came home, with the surround sound, lighting and temperature control. It was wonderful!! I realized the benefits immediately!”
- + “This system runs like a champ for me and my family members. It is very user-friendly and I don't have any issues whatsoever. I am very pleased with the whole thing.”
- + “There was nothing that did not work well; it all was smooth and great. This was strange since we seem to have bad luck with new things we buy usually. We were very happy overall.”

### Home Control–Negative

- “When I first started using it, I was overwhelmed and scared of doing something wrong like leaving the garage doors open, or locking myself out of the house or setting the alarms on my own family. It took me a couple weeks to get the hang of it completely.”
- “It was a lot of trial and error. I had the installer come out for the first two weeks because I would get worried that something or other wasn't working, like the lights for example. It turned out OK, but it was overwhelming. Especially with the motion sensors...remembering to not get in the way of them was a challenge!!”



### Research Finding #3: Ultimately, converged products provide powerful, but unexpected, emotional benefits

Despite their obvious differences in functionality, converged solutions for video entertainment and those for home control ultimately deliver many of the same emotional benefits to consumers.

Why? Because these benefits are derived from the underlying converged nature of the solutions, rather than from the specific video or home control features. And the common thread across these realms—the magic ingredient resulting in the emotional payoff—is **control**.

A sense of enhanced control becomes possible due to the underlying ability of the converged solution

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to *flex* and *adapt*, becoming more relevant to the user's needs and lifestyle as he or she becomes more familiar and comfortable with it. Users come to realize that this adaptability not only provides them with more control within the context of their current lifestyle—it *actually provides them with the*

*freedom to make different choices about how they go about living their lives.*

Real life examples:

#### Video

- A mom buys a tablet PC with the idea that it would be nice for accessing the Internet and email from various rooms in the house. Ultimately, she realizes it allows her to watch videos while on the go; now she enjoys catching up on “The View” while waiting in the car to pick her kids up from band practice—or any other time she has a few moments to herself. “I have changed from only watching TV or movies in my house to watching them anywhere,” one such mom says. “I couldn’t see life without it now.”
- A young man who built his own solution notes how it has changed his lifestyle. He no longer feels “tied down by limitations” of previous devices. “I didn’t have to load disks into a player, or insert a flash drive,” he says. “All my media is already connected via a huge hard drive, Ethernet and Wi-Fi. I can access it anywhere in my house on any of my devices and anywhere in the world. I was able to realize the benefits that same day. I haven’t looked back since. “
- A male in his 30s whose solution enables him to watch Internet video from a variety of devices comes to realize that user-generated video is “fun and exciting” to watch. He likes that “you never know what you might find, and sometimes it truly amazes you.”



## Home Control

- A young dad needs to go on the road with his family for an extended period of time. He sets up a lighting system that he and his wife can control from their smartphones to make their home look lived-in while they are gone. Later, they come to appreciate the benefits when they are at home: the elegance of automated entry and exit lighting scenes, and the convenience of controlling the whole house from the master bedroom. “I really enjoy the ability to not have to run around the house to adjust lighting,” he says. “Lighting becomes something that is pleasing, something that I don’t have to think about.”
- A single working mom who lives with her teenage daughter and aging mother buys a home security system because of concern about her family’s safety. Once she learns to trust the system’s effectiveness as a deterrent to intruders, and as she becomes familiar with monitoring the system from her smartphone, she becomes comfortable enough to socialize after work rather than rushing home to check on the family. “I have a surreal peace of mind that I didn’t know was possible,” she says.

A major hurdle to adoption of converged technology is that despite its promise, some consumers underestimate or can’t anticipate the most compelling benefits they will receive from converged solutions (primarily: enhanced, customized control). Instead, the full value of these benefits is discovered as the result of actual usage. This tends to be true more for home control than video entertainment, since home control solutions can be complex and require changes in family routine, as well as interaction with unfamiliar user interfaces.

Building on Rogers’ notion of observability, consumers can imagine meeting their basic needs as they shop for their solutions because of the obvious, direct links to features/functions. But, they recognize the higher-order emotional benefits only after experiencing a transformation in their own lives as the result of actually *using* their new solution.

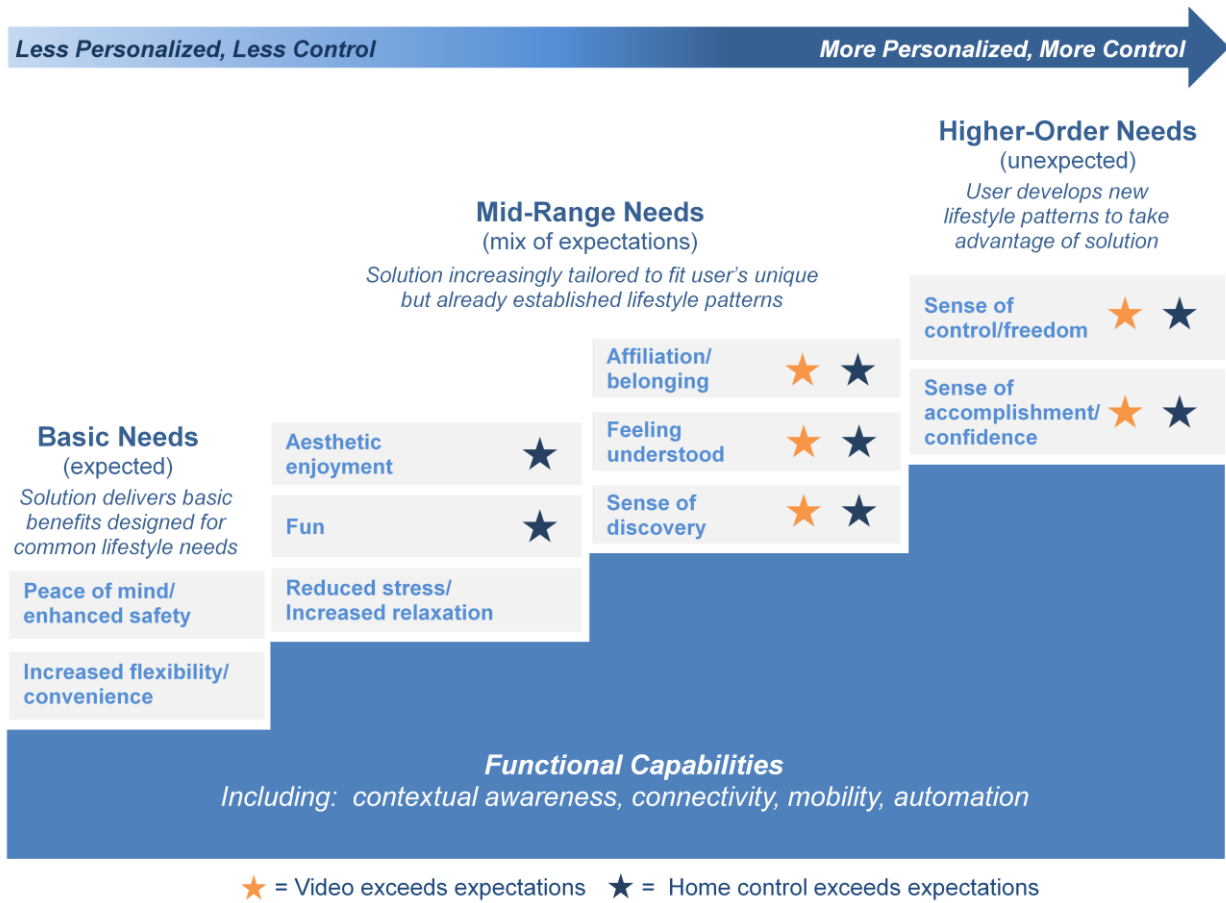
***Consumers... recognize the higher-order emotional benefits only after experiencing a transformation in their own lives as the result of actually using their new solution.***

### Figure 2 illustrates how converged solutions...

1. Initially deliver expected benefits that align with basic needs (security, convenience)
2. Later, deliver both expected and unexpected benefits as users increasingly take advantage of context-sensitivity (for example: location awareness, customized scenes), mobility, connectivity and automation. (Those adopting video solutions are more likely than home control buyers to expect these kinds of benefits—particularly aesthetic enjoyment and fun).
3. Ultimately, drive lifestyle changes that yield higher-level (and often unexpected) emotional benefits.



Figure 2. Flexibility of Solutions Enables Users to Exercise More Control Over How They Live





## Users talk about the benefits of enhanced flexibility and control

### Video

- “I now watch shows I wouldn’t have thought of in the past, since they competed with other events or shows I watched. It’s great that I am able to explore more and give content I might have never considered a try. It would be totally miserable and unbearable to go back to the way things were. I would feel like my TV is my ball and chain and I would have to center my life around it instead of it around me.”
- “I have been able to not stress so much about having my shows to watch, as I know they will always be readily available to me.”
- “I don’t have to live my life around the TV schedule. I can discover new shows I might not have otherwise, and I never have to pay for cable TV!”

### Home Control

- “I now stay out longer. I travel more. I work overtime. If I didn’t have it, I would have to continue to worry about my children and mother being home alone. I would miss the comfort of knowing that everything is fine.”
- “My lifestyle is much more free than I imagined. I can plan and feel protected wherever I am. I don’t want to go back to the way things used to be.”

## Conclusions & Recommendations

We understand that innovations must pass the “tipping point” or “chasm” between early adopters (who value functionality and standing out from the crowd) and the early majority (who value ease of use and fitting in). And our research results sync with Rogers’ notions: successful solutions must be easy to understand, offer compelling advantages over current alternatives, mesh with existing lifestyles, and be easy to observe and sample.

Sounds simple, or at least straightforward enough. But here’s the rub: While converged solutions clearly offer benefits that can improve and even transform users’ lives—the very thing that makes them so compelling (convergence) is the same thing that can lead to deal-killing perceptions of complexity. And when there are precious few opportunities to observe or sample the goods, mainstream consumers are left in the dark, or at best, on the proverbial fence—waiting for the right kind of reassurance that the risk is indeed worth it.

Fortunately, there is a way to reduce the perceived risk of adopting converged solutions: **make it easier for shoppers to experience the contagious excitement of those who have already taken the plunge.** That means fostering a groundswell of genuine word-of-mouth exchanges between would-



be buyers and experienced users, who can most effectively communicate the high-level emotional benefits.

The task at hand, then, is to effectively engage the right people, who will then naturally deliver this compelling message—that they are happier, more relaxed and more in control than ever before, and they will never go back to the way things used to be.



### Consumers talk about what life would be like without their converged solution

#### Video

- “It would be HELL if I gave up my iPad. I feel about it like I do my DVR, cell phone and Internet--I couldn't see life without it now.”
- “I would feel like my TV is my ball and chain, and I would have to center my life around it instead of it around me. It would totally disrupt the way we take for granted how mobile and unrestricted access to video content is today.”

#### Home Control

- “It takes a huge load off of my shoulders. If I had to go back to life without these products, it would be back to the old micro-management system of phone call check-ins and scurrying about in the morning trying to make sure that all of the crazy timers were set on the lights, etc. I would hate it.”
- “This is such a life saver. I can't imagine life without this. I am a creature of comfort, and it makes me feel safe and secure in the fact that I can control my system in the palm of my hand from a smartphone. I would not ever go back to the way it used to be.”

In our opinion, the focus of such an effort should be Gladwell's Connectors, Mavens and Salesmen—the precious influencers whose opinions carry so much weight.

#### Identify Influencers

The most obvious but sometimes overlooked way to find these people is to make it easy for them to provide feedback on their experiences.

- Include the opportunity to provide feedback in every customer touch point, from the in-store or online shopping experience through purchase, installation and use.
- Customer service phone lines can become a relationship management goldmine for finding and engaging these people.

## Engage Influencers

Once they've been identified, the key is to effectively engage them.

- At a high level, we recommend providing ways for early users to share their experience via review websites, customer communities, and best of all—live demonstrations to friends and family.
- The tricky part: staying out of their way. Shoppers *must* believe in the credibility of these people, so a certain amount of grumbling simply must be tolerated for the greater goal—to let these influencers work their magic.

Of course—this must be founded on underlying solutions that deliver on the ease-of-use considerations outlined previously (see Tables 2 and 3). Providers are advised to get that right before investing in a word-of-mouth marketing campaign.

In our view, there's a great deal of untapped potential yet to be realized in the realm of convergence. Much of it has been there all along: Elegant solutions provided by experts and backed by stellar service. The enthusiasm of loyal customers. Potential buyers experiencing significant pain points in their everyday lives. And of course, the social media revolution offering ever-expanding ways to connect them.

In this most high-tech of worlds, direct, genuine human communication—both online and in person—may just be what's needed all around.



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Zanthus is a full-service market research-based consulting firm serving high-tech companies. Headquartered in Portland, Oregon, we are particularly well-known for our uniquely compelling combination of industry and research expertise as well as our commitment to reliable market research methods and analytical techniques.

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## Questions?

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