



Internet**Home**Alliance  
CABA's Research Council

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**Digital Kitchen Study**  
*Executive Summary*

February 2007

# Executive Summary

## Background

The Internet Home Alliance Research Council is interested in understanding how consumer electronics and technology contribute to family life as it happens in the kitchen, both now and in the near future.

With the Digital Kitchen research findings, team members can guide their companies' product development plans for Internet-enabled technology in the kitchen and throughout the home.

The research will be also be used to inform and validate the design and build-out of an ideal kitchen, displayed at the 2007 Kitchen/Bath Industry Show in Las Vegas. This ideal kitchen is designed to suit the needs, desires, and activity patterns of Active Balancer families, which comprise roughly 15% of U.S. households.

## Two primary research goals:

- Understand what the kitchen looks like in 2006 regarding:
  - Kitchen size, seating areas
  - Census of common kitchen accessories and appliances
  - Activities done in the kitchen
  - Presence/use of technology and CE in the kitchen
  - Consumer behavior regarding cooking, food shopping, eating meals
- Determine what kinds of functionalities and which technology/CE products and services would best suit the needs, desires, and activity patterns of North American homeowners.
  - Specifically, what do families want to be able to do in the kitchen?
  - What manner of functionality, kitchen design, and technology would facilitate these activities?

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## Methodology

Zanthus conducted a Web-based survey among 602 homeowners who participate in choosing both kitchen appliances and consumer electronics for the home. Gender quotas were not imposed; males and females who met the screening criteria had an equal chance of being surveyed.

Respondents met the following criteria:

- Age 25-64;
- Own a single family home (88% are single detached, 10% are condos/town homes, 2% are something else);
- Have broadband Internet at home;
- Household income of \$35,000 or greater; and
- Head of household who solely or jointly makes purchase decisions for both kitchen appliances and consumer electronics for the home.
- Sample was quota controlled so that the respondent data set matches the distribution of households by U.S. Census region.
- 10% of respondents reside in Canada (n=60).

## Fielding Details

Fielding Dates January 5 - 12, 2007

Survey Length 22 mins. on average

Margin of Error +/- 4% at the 95% confidence interval

With no gender quotas imposed, the natural distribution of people who met the criteria was an equal male/female split. That is, among homeowners with a household income of \$35K+ and broadband Internet, an equal number of males and females make purchase decisions for kitchen appliances and consumer electronics.

It seems that both husbands and wives have a say in the purchase of both appliances and CE. But they make somewhat contradictory reports about how much involvement their spouses/partners have in buying things like dishwashers and TV (illustrated in the report).

Husbands and wives also see the distribution of kitchen chores from different perspectives (also noted in the report).

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## Kitchen Design

The median reported home size is 1,800 sq. ft. The large homes are in the South (2,000 sq. ft. median) rather than in the Northeast, Midwest, or West (1,800 sq. ft. median for each).

According to the 60 respondents surveyed in Canada, Canadians have smaller homes; 52% live in houses of 1,500 sq. ft. or less, compared with 35% of U.S. residents. Because the Canadian sample size is small, findings should be considered directional rather than conclusive.

The bigger the home, the bigger the kitchen. Most homes have a medium-sized kitchen (200 sq. ft.). The South has more large kitchens (20% of Southern homes) than Canada and other regions do (about 16%). Small kitchens (80 sq. ft. or less) are more common in Canada (43%) and the Northeast (34%).

15% of households plan to spend \$10,000 or more to remodel their kitchens in 2007.

Dining rooms still exist. Most homes have a dining room separate from the kitchen (71%). Islands (64%) and breakfast bars (60%) are disproportionately found in large kitchens rather than in medium and small kitchens.

One in 5 homes has a desk/workstation. Desks and workstations are in large kitchens (42% have one) and remodeled kitchens (47% have one). Most of these are designed as built-in desks with file drawers (40%).

Canada base n=60; results are directional.

Tech/CE items that are kept in some kitchens are landline phones and phone bases, cell phone chargers, and cell phones.

Some watch TV in the kitchen (33%), but few keep TVs in the kitchen (13%). Other data indicate that some people watch TV in a great room from the kitchen. People in the Northeast (25%) and Midwest (21%) keep kitchen TVs more than people do in the South (7%), West (8%), and Canada (7%). Half of TVs are on the countertop, and half are on the wall or in under-cabinet mounting.

Few keep laptops (12%), and desktops (8%) in the kitchen.

## Decision Making

For buying appliances, women say the female head of household does the shopping (68%) and choosing a brand/model (80%) on her own. But men say husbands alone browse the aisles (61%) and pick the brand/model (75%). For consumer electronics, some wives completely cede the shopping (23%) and choosing (32%) to their husbands, but most say they shop for and buy CE on their own or with their spouses.

As a rule, men assume they make most of the decisions, most of the time, on both CE and appliances.

These results compare all men to all women, including single and married individuals. 88% of all respondents are married. Analysis of married couples shows virtually the same outcome. That is, married men and women also believe they take a much larger role in decision-making than their spouses.

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## Activities in the Kitchen

In part, household meal habits are driven by the presence/absence of children. In homes with kids age 0-17, dinner happens at the kitchen table (49%) or in the dining room (31%). Households with no children eat dinner most often in the great room (38%), and at the kitchen table (32%).

Homeowners eat 15 of 21 weekly meals at home. Households with children eat slightly more meals at home, and slightly more take-out meals at home.

On average, respondents report that women do about two-thirds of the grocery shopping and cooking. But women say women do nearly all of it, and men say men do about half of it.

Clearly, men and women experience cognitive dissonance when they think about themselves, their spouses, and housework. It's likely that both sides exaggerate their roles. It's also probable that that men greatly overestimate their contributions, when compared to the miscalculations that women make.

These results compare all men and all women, both married and single. Analysis of married couples only shows virtually the same outcome.

Most homes use a paper calendar; nearly all are kept in the kitchen. Two-thirds of women say they are the sole household member who adds items to the calendar.

Four activities commonly take place in the majority of North American kitchens:

- Cooking for enjoyment. Two-thirds say they do so at least several times per week.
- Three-quarters talk on the phone; most do so at least several times per week.
- The kitchen is the message station. Homeowners leave notes for themselves and others.
- Half entertain friends in the kitchen.

Many activities go on in some, but not all, kitchens, including: reading, planning schedules and events for the family, paying bills, listening to music/talk shows, watching TV, arts and crafts, and homework.

About one in five homeowners 21% do work assignments in the kitchen.

Less than 15% of all households do email, Web surfing, and other computer activities in the kitchen.

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## Activities in the Kitchen (con't)

In homes with kids, the kitchen gets more use for cooking, talking on the phone, leaving messages, and entertaining, plus schedule planning (52% vs 31% in homes with no children), arts and crafts (44% vs 19%), homework (48% vs 7%), and work assignments (27% vs 15%).

Kitchen size also correlates with the volume of kitchen activity. Respondents with large kitchens report using them for all activities in greater numbers than do people with medium and small kitchens. For example, 51% of people with large kitchens say they watch TV there, compared to 33% of medium kitchen owners and 22% of small kitchen owners.

People who plan a kitchen remodel in 2007 also use their kitchens far more than non-remodelers.

Besides a phone, few technology and CE items are used in the kitchen. One-third of respondents watch TV while in the kitchen. Just 16% use a CD player in the kitchen. 5% use a DVD player here.

About half of homes have a laptop computer. In 10% of all homes (21% of laptop homes), people use a laptop in the kitchen.

## Role of the Kitchen

The kitchen is “the best place to leave messages and reminder notes,” according to two-thirds.

The kitchen’s appearance is important to six in ten. This is significantly more true for women (68%), and people with large kitchens (73%).

Canada base n=60; results are directional.

Most homeowners like to cook for family and friends (61%).

Most feel they can choose how much time they spend cooking (58%), and most like to experiment in the kitchen (57%). Younger and mid-life consumers (age 18-34 and 35-54) like to experiment more than older consumers.

About half believe the quality of appliances and utensils makes cooking more enjoyable. This is more true among 2007 remodelers (69%) and those with a large kitchen (65%).

Nearly half strongly agree that they’d prefer to have more counter space.

Most homeowners do not agree that appliances and consumer electronics in the kitchen should be hidden when not in use.

Some households (26%) say they like to “watch TV when doing other things in the kitchen.” More Southerners say so (34%) than do people in the Northeast (26%), Midwest (22%), West (23%), and Canada (11%).

## Pain Points

Respondents volunteered items or capabilities they’d like to have in the kitchen that they don’t have now. TV and Internet access are at the top of the kitchen wish list. TV was mentioned by 18%. It’s especially desired by those age 18-34; 23% of this subgroup ask for it. Internet access is requested by 16%.

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## Ideal Future Kitchen

**In the kitchen, homeowners ask for functionality and control more than entertainment.** Respondents were asked to assume they would remodel their kitchens. From a set of 22 concepts, they chose ones they would consider putting in their remodeled kitchen, if reasonably priced.

The popular concepts facilitate cooking, control of home systems, and family scheduling. Compared to these, entertainment ideas (satellite radio, DVR, distributed audio and video, video games) are significantly less appealing to both to the broad audience and to 2007 remodelers.

The most promising concepts are these 6, chosen by 23% or more of all homeowners:

**Digital Calendar.** The primary kitchen users are also the primary schedule keepers. Women keep the family calendar in the kitchen, and a digital version is the most preferred concept of the 22 concepts tested.

**Recipe Projection.** Eight in ten say they cook for enjoyment, and 64% do so at least several times per week. This concept appeals to a diverse audience.

**Energy Usage Monitoring and Control.** This concept's popularity reflects the fast-spreading acknowledgement of global warming as a result of human activities. It's most popular in the West, where California recently became the first state in the nation to impose an emissions cap on utilities, refineries, and factories.

**Universal Charging Station.** Statistics compiled by CTIA show that more than three-quarters of adult U.S. residents now have a cell phone. In the Digital Kitchen study, about one-third of households keep cell phones on the kitchen counter, and one-half keep a phone charger on the counter as well. A Universal Charging Station would charge up the multiple cell phones owned by within the household, in the place where phones and chargers are often stashed.

**Wireless Internet.** Half of households in the study have a home network now, and the great majority are wireless networks. 29% of all homeowners, and 43% of 2007 remodelers, want to surf the Web from the kitchen. Homeowners want to do Web surfing and email, not necessarily use a PC for offline apps. Wired Internet is not desired; just 5% of homeowners picked it for their ideal kitchen.

**Home Control Station.** This concept combines energy management (HVAC control) with security via web camera feeds of the front step and activity in the backyard. It is equally appealing to households with and without children.

**Given the popularity of these concepts, homeowners seem to ask for functionality and control more than entertainment.** There are two entertainment items that the market wants in the ideal future kitchen: TV, a reliable companion; and wireless Internet; the beam that transmits all things that can digitized.

# Executive Summary

## Conclusions & Recommendations

### Kitchen Design

**Keep the current footprint.** Overall, the majority feel they don't need more square footage in the kitchen; 62% said they wouldn't add square footage to their remodeled kitchen. A bare majority of 2007 remodelers want more floor space (56%) and so do a similar number of homeowners with small kitchens (51%).

**More counter space is called for.** Nearly half (47%) strongly wish for more counter space, this is especially desired in small kitchens (63%). At the same time, few believe their kitchen is cluttered (28% overall, predominantly people with small kitchens). Many say they like to cook for enjoyment; two-thirds say they do so at least several times per week. Perhaps homeowners want more counter space free for meal preparation rather than for storing appliances and decorative items.

**People with kids need a kitchen table for meals.** In homes with children, dinner happens at the kitchen table (49%) or in the dining room (31%).

**Some people with no children might not want one.** Households with no children eat dinner most often in the great room (38%), and at the kitchen table (32%).

**Cabinetry for appliances and CE isn't a priority.** About one-third strongly agree that both appliances and CE should be hidden when not in use, but two-thirds didn't express this belief.

**A desk/workstation is probably not needed.** While many people leave notes, pay bills, and plan schedules in the kitchen, they generally say their kitchen is reasonably well suited to do these, even though most kitchens (79%) don't have a desk/workstation. And because most of these homes have a wireless network, a laptop could be used on a kitchen counter, breakfast bar, or kitchen table. Half of large kitchens have a desk now, as do half of kitchens that will be remodeled in 2007. Most homeowners (82%) don't want to do work assignments in their ideal kitchens. But some 2007 remodelers do (31%).

**A bare majority sees the kitchen as the party room.** Right now, people entertain friends and family in the kitchen in about half of homes; more so in medium (59%) and large (65%) kitchens. In large kitchen homes, 48% say the party ends up here, but it's not the case in medium and small kitchen homes. Among all households, just over half want to entertain in their remodeled kitchens. Most 2007 remodelers want to (64%), as do respondents with large kitchens (55%).

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## Conclusions & Recommendations (con't.)

### Decision Making

**Marketers and retailers should assume that both husbands and wives firmly believe that their opinions and choices prevail, both for appliances and for consumer electronics.** In summary: No wife would think of allowing her husband to pick out a dishwasher. She'd make the trip to Sears. She might bring him along. Some wives send their husbands off to Best Buy to track and bag the new TV. But most expect to shop and choose either on their own or with their spouse.

Men tend to believe that they alone find, compare, and acquire both appliances and consumer electronics.

### Activities in the Kitchen

**Manufacturers, marketers, and retailers of kitchen items should continue to listen to women, the primary kitchen users.** Academic studies have shown two trends: men are spending more time on household chores than before, but men also greatly overestimate their contributions to home upkeep. Still, acknowledge to the market that men see themselves as staff in the kitchen/cooking workforce.

**Cooking first, technology and entertainment next.** A surprisingly high percentage of respondents say they love to prepare meals for friends and family, like to experiment in the kitchen, and that they regularly cook for enjoyment. Few homes use technology in the kitchen; the most common are radio (listen to music/talk shows - 38%) and TV (watch TV - 33%). Even in households with laptops, a minority (21%) use them in the kitchen. This indicates that the kitchen should facilitate cooking and meals as a first priority and other uses as a second priority. The two exceptions are TV and wireless Internet in the kitchen.

**Phone calls happen in the kitchen.** Right now, three-quarters of homeowners talk on the phone in the kitchen. But a slightly smaller number (70%) say they want to talk on the phone in their ideal kitchen. It's possible that mobile phones let people talk in other places they consider more convenient and suitable, and so the phone is untethered from its traditional spot in the kitchen.

**Design a kitchen message and schedule device.** Homeowners leave messages and update the calendar in the kitchen. In this research, respondents most often chose a Digital Calendar as something they'd like to have in their ideal kitchen. A company developing a digital calendar/reminder app should plan it for kitchen use, by the female head of household.. Two-thirds of women say they are the sole household member who adds items to it.

# Executive Summary

## Conclusions & Recommendations (con't.)

### Activities in The Kitchen (con't.)

**Families use the kitchen more than couples and singles do.** In homes with children, residents do more cooking, phone talking and phone message checking, message leaving, entertaining, and schedule planning.

Compared to people with no children, those with kids are just as likely - but no more likely - to use technology and CE in the kitchen.

**TV should be included in the ideal kitchen.** Right now, 33% of homeowners watch TV in the kitchen. 43% want to watch TV in their ideal kitchen, and so do 51% of 2007 remodelers. TV in the kitchen appeals more to people in the Northeast and the South (48% for each), compared to those in the other regions and Canada (about 39% for each).

**Consider ways to store and pay bills in the kitchen.** Almost half (46%) say they keep bills and paperwork on the kitchen counter, refrigerator, or on wall/undercabinet mounting. Nearly the same number (45%) would like to pay bills and take care of family paperwork in the kitchen. Perhaps special slots can be designed for cabinetry, for storing and organizing paperwork.

### Ideal Future Kitchen

**The kitchen of the future should include the following products/services, which were chosen by 23% of households or more:**

**Digital calendar.** A calendar on a screen that allows you to add appointment reminders and post notes that everyone in the household can access while in the house, or can check over the internet when away from home.

**Recipe projection.** Look up a recipe online or even say aloud what you want to cook (e.g. "beef stroganoff"). The recipe will be projected wirelessly onto a surface in your kitchen from a small cabinet-mounted device.

**Energy usage monitoring and control.** Monitor energy consumption by area or appliance in your home (family room, hot water heater, swimming pool, etc.). Monitor energy usage by circuit or appliance; chart peak times; diagnose areas of wasted energy; calculate energy costs.

**Universal charging station.** Charge up to 3 cell phones or PDA's simultaneously. Charges all brands and models.

**Wireless Internet.** Install a wireless network in your home to get wireless Internet access in all rooms, including the kitchen.

**Home control station (HVAC control, security).** A screen where you can view the temperature inside and outside of your home, adjust the thermostat with a touch of your finger, view live video of the front step of your house and/or the backyard to see kids playing.

Canada base n=60; results are directional.

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## Conclusions & Recommendations (con't.)

### Ideal Future Kitchen (con't.)

**Homework might fit better some place other than the kitchen.** In 48% of homes with kids, kids do homework in the kitchen. But the majority of all parents (59%) prefer that homework be done in a place other than the ideal kitchen.

**Keep the Play-Doh away from the cookie dough.** In homes with children, 43% do arts and crafts in the kitchen. But 69% of all parents say they'd rather do this activity in a location other than the remodeled kitchen. In homes without children, arts and crafts don't happen here and homeowners don't want to do them here.

**Weather info is desired but the tested delivery mechanism may be lacking.** Some (37%) want to check the weather report in the kitchen. However, the on-demand info and weather device was picked by just a few respondents (12%). Perhaps a device which provides a limited set of info is less appealing when compared with wireless Internet in the kitchen to transmit any/all content.

**Movies don't fit in the kitchen.** Homeowners don't see themselves watching videos or movies in the kitchen (85%), perhaps because it's an activity that needs time and attention - two things in short supply when making dinner.

Some 2007 remodelers (28%) said they wanted to watch movies/videos in the kitchen.

**Limit video games to other rooms.** The vast majority don't want to play videogames in the ideal kitchen (93%).



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