Spring 2008

# Reminiscences: Impact of Textiles and Apparel Technology on Our Lives

Ann Beth Presley
*Auburn University Main Campus*, preslab@auburn.edu

Martha C. Jenkins
*Western Kentucky University*, martha.jenkins@wku.edu

# Reminiscences:
# Impact of Textiles and Apparel Technology on Our Lives

Women's perceptions of technological changes in textiles and apparel and how the changes have affected daily life were examined using the transmissive reminiscence technique. Technological advances do contribute to use of less time and effort and offer a greater variety of products, but the products often have a shorter life expectancy or are kept in inventory for a shorter time because it is more expedient to replace rather than repair or recycle textile and clothing items. Care must be taken to cultivate cohesive relationships within the family and teach values that were once inherent in textiles/apparel tasks. Otherwise advances in technology that may enhance our physical existence are easily negated by losses in overall well-being.

**Ann Beth Presley, PhD**
Associate Professor
Auburn University
Auburn, AL

**Martha C. Jenkins, PhD, CFCS**
Professor Emeritus
Western Kentucky University
Bowling Green, KY
*martha.jenkins@wku.edu*

Technological changes pervade every aspect of our lives. Until 500 years ago, change was essentially linear, one step at a time—few leaps in technology occurred. An early disruption of this model was the weaver of the English textile industry. For centuries, they worked in guilds and membership was passed from one generation to the next. Skilled weavers were dismayed because they thought the textile machines introduced early in the Industrial Revolution would destroy their livelihoods (Kurzweil & Meyer, 2003).

Today, the acceleration and variety of technology change is both ubiquitous and exponential. According to Kurzweil—inventor, entrepreneur, author, and futurist—The whole 20th century . . . is equivalent to 20 years of progress at today's rate of progress" (Kurzweil & Meyer, 2003, ¶1). If this [rate] continues, and there is every reason to suppose that it will, the whole 21st century will experience the equivalent of twenty thousand years of 'normal' human progress" (Mead, 2007, p. 413).

Technology advances in one area transfer to applications in other areas. For example, many technological developments of the space program have permeated our food, clothing, and shelter, as well as communications, electronics, medicine, transportation, and construction. Technology has improved quality of life in many respects. Are there negative as well as positive effects? Vincenti suggested that technology presents a double edged sword—both benefits and consequences of technology:

> Our materialism and unreflective adoption of technology frees and yet oppresses us. It has increased the ease and speed of communication, computation, travel, life expectancy, and work flexibility, but it also has decreased

human interaction, community involvement, time with family, children's attention span and creativity, and exercise (Vincenti, 2003, p. 1).

In textiles and clothing, more technological developments have occurred in the last century than in previous recorded history. Technology has changed the way we live, what we wear, the choices we make daily, and textiles used in the home and in vehicles. Advances in weaving, knitting, and apparel construction made the establishment of the ready-made apparel industry possible in 1900 (A Time Line, 1991). With the movement of apparel production out of homes and into factories, it became possible for common people to have ready-to-wear clothing and textile items at moderate prices. Maintenance of apparel and textiles was greatly simplified and shortened when the electric washing machine was invented in 1908 and the clothes dryer in 1915 (Bellis, 2007). In addition, soap no longer had to be made at home; it could be purchased at a reasonable price.

**In textiles and clothing, more technological developments have occurred in the last century than in previous recorded history.**

Mid-20th century innovations in cleaning agents and wrinkle resistant finishes, synthetic fibers, and automatic washers and dryers paved the way for easy-care fabrics. The introduction of durable press in the early 1960s made life easier for consumers, especially women; some are said to have thrown away their irons (Kadolph & Langford, 2006).

Until synthetic fibers were developed, cloth was woven or knit from the natural fibers—cotton, flax, silk, and wool. Early in the 20th century, man-made fibers accounted for 1% of American's fiber market. The percentages increased to 20% in the 1950s, 30% by the 1960s, and 40% by 1965. By the turn of the 21st century, man-made fibers accounted for 70% of the American fiber market (American Fiber Manufacturers Association, 1988; A Short History, 2007).

Technology brought hundreds of manmade fibers—from the introduction of rayon in 1910 and acetate in 1924, through the truly synthetic fibers in mid-20th century and the myriad of modifications and new fibers toward the end of the century. These fibers were engineered for specific performance characteristics such as greater comfort, flame resistance, anti-static, soil release, greater whiteness, special luster or dullness, dyeability, and better blending (Kadolph & Langford, 2006). Innovative fabrics are pervasive in consumer, industrial, and medical uses. For example, Gore-Tex®, a waterproof, but breathable fabric spin-off from the space program, is ideal for high performance outerwear and is used in implant material in the form of patches or membranes in surgery (Ferkel et al., 1989; Gore-Tex®, 2006; Gore-Tex® Introduces, 2000).

In textiles and apparel, nanotechnology is now optimizing performance and providing smart solutions to product versatility and performance. The SmartShirt System integrates advances in textile engineering, wearable computing, and wireless data transfer to permit the collection, transmission, and analysis of personal health and lifestyle data. Vital parameters such as heart rate, respiration rate, body temperature, caloric burn, body fat, and UV exposure can be communicated to doctors from soldiers or police officers in the line of duty (USA: Smart Textiles, 2004).

## PURPOSE

The purpose of this study was to examine women's perceptions of changes in textile/apparel technology and how these changes affected the quality of life of individuals and families. Specifically,

- Are the lives of family members better or worse?
- Has the time gained enhanced the quality of life, particularly for women?

## METHODOLOGY

Women's perceptions of textiles and apparel technology and how changes have affected their lives were obtained using the transmissive reminiscence technique. Reminiscence refers to a mental impression retained or recalled from the past or a narrative of past experience. The function of transmissive reminiscence is the "passing on [of] one's cultural heritage and personal legacy" (Wong & Watt, 1991, p. 273) and "it is indicated by references to the culture and practices of a bygone era, traditional values and wisdom, and the lessons learned through one's past" (¶12). The reminiscence technique most often has been used with the elderly; however, it can be used with any group. The memories brought out in the group have a synergistic effect so that one memory stimulates others (Haight & Webster, 1995; Lowenthal & Marrazzo, 1990).

**The reminiscence technique most often has been used with the elderly; however, it can be used with any group.**

Reminiscence sessions were conducted with two groups of women (six per group) who were first married in the 1940s, 1950s, or 1980s. The women in the groups were selected to include those who started their households in the 1940s before automatic electric washers and most easy-care fibers were available, those who started households in the 1950s when automatic washers and dryers and many synthetic fabrics were available, and those who started households in the 1980s when easy-care apparel and textiles were a way of life. The reminiscence sessions were recorded and transcribed. A qualitative inductive approach was used to analyze the data.

All of the women grew up in relatively rural areas and currently lived in a city of approximately 50,000. Educational levels varied from high school through master's degrees. The women were told that we were interested in their perceptions of textile and apparel through the years. Questions used to stimulate reminiscence focused on clothing and textiles and related household chores, cost and portion of household income allocated to these items, availability of items, and changes in products over time. Responses to the questions were used to examine women's perceptions of changes in textiles and apparel as related to technology. Other questions focused on how technological changes may have had an impact on the quality of life and lifestyles of family members, cohesiveness of family structure, and development of values.

## FINDINGS AND DISCUSSION

Certain limitations must be taken into consideration in interpreting the findings. Reminiscences were obtained from a limited number of purposively chosen participants, from three time periods, and in one geographic area. The findings are limited to the groups studied and not necessarily transferable to other populations, time periods, or locations. Although the reminiscence technique has been used primarily as a therapeutic tool with the elderly, the use of transmissive reminiscences was particularly applicable to this study.

### *Textile and Clothing Chores*

The women's perceptions of technological changes in textiles and apparel relative to household chores indicated that much less time and effort are required for these chores now than was the case in earlier years. *It would take 20 minutes or more to iron a man's dress shirt compared to 5 minutes or less now with permanent press, and some need not even be pressed. Washing, ironing, and pressing take less time now. We used to have to wash, starch, sprinkle, and iron everything—wear once and then press or wash again. Used to have to press outfit every day before [we] could wear [it], and now we can travel without pressing. The wringer washing machine made washing a lot easier than using the washing board and now the washer/dryer! It would take at least a half day to wash, even starting at daylight, and usually a day or more to do the ironing.* In contrast, today clothes are washed in energy-efficient, high-performance machines and pressed with cordless, electronic steam irons; also, countless laundry products are at our fingertips to facilitate maintenance (Carter, 2006).

The participants recognized that washing and ironing used to require a great deal more time and effort than they do today because extra steps were necessary. *Grandmother boiled white things in a*

*big black kettle with lye soap to get clean and white, and, before bleach, she added bluing to [the] rinse to make white things look whiter.* Changes in technology such as the automatic clothes dryer and the type of iron used made a difference in the maintenance of the textiles and clothing items. *Didn't always have electric irons—used cast iron ones heated on wood stove. They were hot enough to use when a drop of water or spit on bottom would sizzle.* They also knew that keeping items smooth and wrinkle free required extra steps in the laundering process, and that line drying did not result in a soft, smooth appearance. *We even ironed sheets, pillowcases, and grandmother ironed towels, socks, everything.* The advent of easy-care fabrics has greatly reduced ironing time. In addition, in many households, dress shirts are sent out for professional laundering, starching, and ironing, thereby saving more time.

In the early 20th century, 10% of American homes had electricity; the average household depended on coal and water carried into the home by the family. This meant that:

> Doing laundry was especially time-consuming and onerous since water had to be brought into the home, then heated. Clothes were washed and then wrung out by hand or mechanical machines. Irons had to be heated continuously to finish the job. Today the process of cleaning clothes is so easy that, according to Proctor & Gamble, American households do more than 1,000 loads every day. (Bowman, 2006, ¶6) [See Editor's Note at end.]

Maintenance has become so easy that we wash clothing and textiles more often. This represents a shift in clothing/textiles-related practices as seen in statements such as: *We didn't used to change children's clothes 5 or 6 times a day; if they got soiled, we just tried to clean the spot; Children today [are] not instructed to keep clothes clean—if a little spot, now wash the whole thing. It is so easy to toss in washer/dryer.*

Fewer household textiles are needed because changes in technology have made them so easy to care for: *Sheets and pillowcases—now only have to have one set, can easily wash, dry, and make bed immediately, with washer/dryer. [We] don't have to have as many things now, but most people have more just because we can. If something needs repair or doesn't fit, [it is] easier now to just discard and buy new item.* As one participant said, some items such as diapers are so inexpensive that consumers *"don't wash diapers now—use disposables."* Hawley noted "Americans live in a throw-away, high-consumption society where an individual's worth is often measured by the clothes they wear" (2000, p. 41) and the products used. Also, she confirmed that consumers often justify buying the latest fashion by donating to charity many perfectly good, but slightly out of fashion, items from overflowing closets.

Participants recognized that in spite of the long hours and hard work that used to be involved in maintenance of textiles and apparel, the time families spent together was valued more than it is today. For example, *The family spent more time together doing chores than do now. Time today not spent together. People don't seem to value time together as then. Home today [is] just place their clothes stay or place between places, not even place to go to eat*! This is consistent with Vincenti's (2003) concerns about the negative effects of technology.

### *Costs and Purchasing*

The women perceived that the actual cost of textiles and apparel was less today than when they started their households, but they recognized that the portion of income expended for textiles and clothing was probably more. According to the *Regional Review*, the price of ready to-wear has dropped 52% since 1970 (Lovejoy, 2002). One participant noted: *In 1940 [you] could get a yard of material for 49 cents and everything to make dress for $2.00—guess that's how the line in the song came about—cotton lisle stockings and $2.00 dress.* Other comments were: *[You] could get a nice Sunday dress for less than $5.00—[I] remember a pink linen-like dress with silver buttons—it was Butcher linen [really rayon]. A dollar then would probably be about $16 now—a $5 dress then I might buy for $60 now. We used to tie ribbon in child's hair, now we pay $5 or more for made-up bow.* Actually, the percentage of income that it takes to purchase these items has declined, so saving time may be more expedient than saving money, especially with more women in the labor force.

The reminiscences of women are consistent with the finding that the increase in aggregate clothing and shoe expenditures in the United States between 1929 and 1984 was 1400%, but the personal consumption expenditures fell from slightly less than 12% in 1929 to about 6% in 1984 (Winakor, 1986). Although inflation was almost continuous throughout the 20th century and overall prices are still rising, the costs of some items, including clothing, have been dropping in recent years (Leonhardt, 2003). Since the 1970s, according to Winakor (1989), relatively lower prices for clothing allowed consumers to purchase a larger quantity and to shift a portion of their clothing expenditures to other commodities. Also, because the double digit inflation of a quarter century ago, low-wage countries such as Mexico and China have made imports inexpensive. American companies have increased domestic productivity by making more goods with the same amount of labor, as well as producing many products off-shore in low-wage countries (Leonhardt, 2003). Additionally, the popularity of outlet stores, thrift and consignment stores, and yard sales has increased the availability of lower-cost alternatives generally not available until the 1980s. Consequently, the percentage of income spent on clothing has dropped even lower. In a study of Baby Boomers' shopping habits, it was found that in 2003, female Boomers spent an average of 4.23% of their income on apparel goods and services (Seckler, 2005).

Several participants recognized the savings involved in making clothing and other items and using economical fabric such as feed sacks. *My mother made lots of clothes—Sunday, school, and every day; Feed sacks could be used to make clothes—some were prettier than a lot of material—one dress had little purple flowers on white background. Some looked like linen—'kinda' coarse. It took two sacks to make a dress; [you] could swap feed sacks if you didn't buy two alike; some people would sell them to others;* and *two sisters might have dresses alike because buying more of one fabric was cheaper than buying two different fabrics.*

At the same time, the women were aware that the household has become a consuming unit rather than a production unit. They observed that younger generations not only lack necessary skills to produce clothing items, but also ascribe a level of prestige to certain brands as indicated by the following comments: *Children's clothes seem so much more expensive now, pay for name and manufacturer, and [we] buy so many different outfits* and *people don't know how to sew now or can't get same look as OshKosh and other names.*

Indeed, the height of the home sewing industry was in the 1970s, and has continued to decline since then (Ambry, 1988). Perhaps most consumers no longer choose to expend time and energy in textiles and apparel production because apparel is readily available and within their purchasing capability. Also, as more women have joined the labor force, they have more income and less time to sew or repair clothing (Lovejoy, 2002).

The availability of textiles and apparel today compared to the availability in the 1940s, 1950s, and even the 1980s was apparent. The choices of places to shop and selections from which to choose were once limited, especially for families in rural areas. The women in this study said: *Most things were [previously] bought from catalogs—Sears, Roebuck or Montgomery Ward, now [there are] lots of places to shop and choices of things, clothing for every activity. Some things, like panties, might be bought at dry goods store in community, or in 1950s might go to town of about 25,000 for special things—like high school graduation outfit,* and *sales in regular stores, consignment stores, and yard sales mean you can buy a lot for a little today.* Thus, consumers are purchasing larger quantities of clothing at a lower percentage of total expenditures.

### *Lessons Learned*

The women recognized that valuable lessons were learned when the family spent time together doing textiles and apparel related chores. *We learned to work—things like carrying water to wash, washing, ironing, helped us to develop the work ethic. We were taught to try to keep clothes in good shape, to take care of possessions, to save, be frugal, don't throw anything away that could be used by*

*someone or used in some other way. We needed to earn money to buy clothes [for school]—always spent money for clothes/material. Might pick strawberries all season to make $20 for shoes and dresses for school year.* Additionally, one participant noted *We learned cooperation, cohesiveness, sense of pride in helping within family, and to make best of what we had.*

## CONCLUSIONS

Reminiscences about technological changes in textiles and apparel and the impact of these changes on quality of life, revealed that the women were aware of both benefits and consequences. They perceived that changes played a role in lightening household chores and helping many to take positions outside the home. At the end of the 20th century, about 60% of women 16 and older were in the workforce, up from 20% at the beginning of the same century. During the same period, the workforce participation rate for women ages 25 to 40 rose from less than 20% to more than 75% according to the White House Report on the Economy (Cohn, 2000). These changes came about for many reasons but there is no doubt that technological changes in textiles and apparel have been a contributing factor.

**Even with fewer children and more labor-saving devices, time spent on household chores did not decline in the first 50 years of the last century.**

Even with fewer children and more labor-saving devices, time spent on household chores did not decline in the first 50 years of the last century. However, between 1965 and 1995, women cut the time spent on household chores about one-third, from about 30 to about 17 hours per week (Bowman, 2006). Based on data from diaries and questionnaires in the U. S., women performed 13% less housework than they did in 1985, but still spend 60% more time on chores than men—an average of 27 hours per week. Men expend the same time as in 1985 and they expend 4 more hours than they did in 1965 (National Organization for Women, 2002). Textiles and clothing maintenance is still primarily women's work. According to one report (Housework Still, 2000) women do 76% of both the laundry and ironing, and more than half of the routine cleaning (71%), cooking (67%), carpooling of children (58%), grocery shopping (58%), and taking children to friends' homes (56%).

An anomaly exists in that changes in textiles and apparel technology have made product performance and maintenance so efficient that we actually need fewer apparel and household textiles. However, relative cost, availability, and "fast fashion" have fueled the urge to purchase in greater quantities and to indulge in the latest and most up-to-date products whether or not they are needed.

## IMPLICATIONS

The following implications were formulated based on the findings from the perceptions of women who were first married in the 1940s, 1950s, and 1980s:

- Technological changes in the textiles/apparel industry can and do provide potential for improved quality of life. For example, products are easier to maintain than in the past, and a greater quantity and variety are available and accessible. Time once used for care and maintenance can be allocated to other activities that have the potential to enhance family well-being (e.g., having family discussions, visiting residents of nursing homes, or volunteering for a favorite cause). Time and effort once expended for textiles and apparel chores can be allocated to pursue careers, provide volunteer services, or engage in other activities.
- Life expectancy of clothing/textiles is now shorter because replacement costs are relatively less and/or replacement is more expedient than maintenance than in the past. A lack of knowledge of proper maintenance and repair and the time involved seem to make replacement the desired solution. The practice of buying more textiles and apparel items than actually needed has become commonplace. Younger generations seem to be caught up in the "buy, buy, buy" lifestyle promoted by advertising and marketing techniques. "Fast fashion," featured at such stores as H & M and Forever 21, encourage the trend of buying inexpensive clothing, which is worn once or twice and then discarded (Fast Fashion, 2007).

**An anomaly exists in that changes in textiles and apparel technology have made product performance and maintenance so efficient that we actually need fewer apparel and household textiles.**

- The need for an enhanced awareness of the desirability of using sustainable resources was evident. The participants perceived that younger consumers are of a mindset that overbuys textiles and apparel and contributes to a "disposable" society. As landfills become full and finite resources are used up, society is beginning to recognize that the concept of sustainability must be applied to resources today much like it was in earlier times (Anderson, 2007).
- Care must be taken to build into our lifestyles opportunities to cultivate cohesive relationships within the family and teach values and strong character traits, which were once inherent in textiles/apparel tasks. Otherwise, advances in technology that enhance our physical well-being are easily negated by losses in overall quality of life. Some examples include planning chores that can be done together that help build family relationships, incorporating traditional values, and building strong character traits such as responsibility, respect, trust, caring, citizenship, and frugality.
- It is important to instill a work ethic as well as introduce youth to basic life skills and the conservation of resources, which seem to have been lost in our heavily scheduled world. If advances in textile/apparel technology have reduced benefits in this area of our lives, then other ways to achieve these goals must be cultivated. Teaching basic life skills and sustainability concepts so that future generations know how to maximize the benefits and minimize the negatives achieved through textiles and apparel technology is a worthy goal.

In summary, textile and apparel technologies have improved the quality of life in some ways but not in others. Are our lives better or worse? Textile- and apparel-related tasks were once difficult and time-consuming, and both quantity and variety of choices were limited. Now, those tasks are easy and require minimal time and effort; also, a greater quantity and variety of products are readily available at affordable prices. However, our well-being may have decreased from that of earlier years because we have lost the opportunity inherent in the tasks to teach valuable life lessons and basic skills, instill desirable character traits lessons, and strengthen family relationships. Planning carefully and keeping priorities clear will allow us to enjoy the benefits and reduce the negative outcomes of technology.

## REFERENCES


Ambry, M. (1998, October). Sew what? *American Demographics, 10*, 36–40.

American Fiber Manufacturers Association. (1988). *Manufactured fiber fact book*. Washington, DC: Author.

Anderson, K. (2007, November 7). Reducing the negative environmental impact in the textile and clothing industries. *[TC]² Bi-Weekly Technology Communicator*. Retrieved November 9, 2007, from http://www.tc2.com/newsletter/2007/110707.html

Bellis, M. ( 2007). *Your guide to inventors*. History of washing machines, History of clothes dryers. Retrieved November 26, 2007, from http://inventors.about.com/od/wstartinventions/a/washingmachines.htm

Bowman, K. (2006, March 13). Division of chores doesn't cause much marital discord after all. *Career Journal.* Retrieved November 23, 2007 from http://careerjournal.com/columnists/perspective/200603-fmp.html

Carter, C. (2006, August 1). Transcript of *The history of household technology* [online transcript of video presentation]. Retrieved November 23, 2007, from http://www.loc.gov/rr/program/journey/household-transcript.html

Cohn, L. (2000, February 15). Women in the workforce: They have come a long way. Retrieved October 31, 2006, from http://www.businessweek.com/bwdaily/dnflash/feb2000/nf00215a.htm

Fast fashion. (2007, March). *The Ecologist, 37*, 60.

Ferkel, R. D. et al. (1989). Arthroscopic "second look" at the GORE-TEX ligament. *American Journal of Sports Medicine, 17*(2), 147–153.

Gore-Tex® introduces Pro Shell, 2 in 1 gloves. (2000, April). *Apparel Magazine*, p. 44.

Gore-Tex®. (2006). Retrieved October 13, 2006, from http://wikipedia.org/wiki/Gortex

Haight, B. K., & Webster, J. (Eds.), (1995). *The art and science of reminiscing: Theory, research, methods, and applications.* Washington, DC: Taylor & Francis.

Hawley, J. M. (2000). Textile recycling as a system: A micro/macro analysis. *Journal of Family & Consumer Sciences*, *92*(4), 40–43.

Housework still women's work. (2000). Retrieved from October 30, 2006, from http://www.applesforhealth.com/WomensHealth/housework1.html

Kadolph, S. J., & Langford, A. L. (2006). *Textiles* (10th ed.). Upper Saddle River, NJ: Pearson Education.

Kurzweil, R., & Meyer, C. (2003, May 1). Understanding the accelerating rate of change. Retrieved February 26, 2007, from http://www.kurzweilai.net/articles/art0563.html?printable=1

Leonhardt, D. (2003, January 19). A sinking feeling at the register. Money and Business/Financial Desk. *New York Times*. Retrieved July 19, 2007 from http://www.nytimes.com

Lovejoy, K. (2002). Observations: On pins and needles. *Regional Review*, 12(1), 1.

Lowenthal, R. I., & Marrazzo, R. A. (1990). Reviews: Milestoning: Evoking memories for resocialization through group reminiscence. *The Gerontologist*, *30*(2), 269–272.

Mead, W. R. (2007). *God and gold: Britain, America, and the making of the modern world.* New York: Knopf.

National Organization for Women. (2002, March). Men's share of housework remains same since 1985. Retrieved October 26, 2006, from http://now.org/eNews/march2002/031802outrage.html

Seckler, V. (2005, June 1). Boomers: Divide and conquer. *Women's Wear Daily*, *189*(115), 9.

A short history of manufactured fibers. (n.d.). Retrieved March 13, 2007, from http://www.fibersource.com/f-tutor/history.htm

A time line of influences on American clothing, 1840–1900. (1991, Spring). *Human Ecology*, *19*(3).

USA: Smart textiles offer wearable solutions using nanotechnology. (2004, December 16). Retrieved October 19, 2006 from http://fibre2fashion.com/news/NewsDetails.asp?News_id=11705

Winakor, G. (1986). Trends in aggregate clothing expenditures in the U.S., 1929–1984. In Marshall, R. (Ed.), *ACPTC Proceedings* (p. 130). Monument, CO: Association of College Professors of Textiles and Clothing.

Winakor, G. (1989). The decline in expenditures for clothing relative to total consumer spending, 1929–1986. *Family and Consumer Sciences Research Journal*, *17*(3), 195–215.

Wong, P. T., & Watt, L. M. (1991, June). What types of reminiscence are associated with successful aging? *Psychology and Aging*, *6*(2), 272–279.

Vincenti, V. B. (2003). Point of view: Reflecting on technology. *Journal of Family & Consumer Sciences*, *95*(4), 1.

## ADDITIONAL RESOURCE

National Cotton Council. (1945). *A bag of tricks for home sewing.* Memphis, TN: Author. (Use of cotton bags (feed/flour sacks).

[Ed Note: The primary statement on frequency of laundry: "Every second of every day more than 1,000 loads of laundry are being washed with P&G's detergents around the world" from Science in the Box, retrieved March 8, 2008 from http://www.scienceinthebox.com/en_UK/procterandgamble/]