zones of instability: a context for technology adoption
TECHNOLOGY HORIZONS PROGRAM

The Technology Horizons Program combines a deep understanding of technology and societal forces to identify and evaluate discontinuities and innovations in the next three to ten years. We help organizations develop insights and strategic tools to better position themselves for the future. Our approach to technology forecasting is unique—we put humans in the middle of our forecasts. Understanding humans as consumers, workers, householders, and community members allows IFTF to help companies look beyond technical feasibility to identify the value in new technologies, forecast adoption and diffusion patterns, and discover new market opportunities and threats.

INSTITUTE FOR THE FUTURE

The Institute for the Future is an independent, nonprofit strategic research group with nearly 40 years of forecasting experience. The core of our work is identifying emerging trends and discontinuities that will transform global society and the global marketplace. We provide our members with insights into business strategy, design process, innovation, and social dilemmas. Our research generates the foresight needed to create insights that lead to action. Our research spans a broad territory of deeply transformative trends, from health and health care to technology, the workplace, and human identity. The Institute for the Future is located in Palo Alto, California.

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Thanks for our network of families for spending time with us and giving us glimpses into the future.

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A technology must meet a need or desire or help alleviate a problem to be used on a regular basis, and thus create a successful market for itself. To understand the changing landscape of needs, desires, fears, and risks in some of the world’s largest and most dynamic places—Brazil, Russia, India, China, and Silicon Valley (what we are calling BRIC+S)—this report, Zones of Instability: A Context for Technology Adoption (SR-1032), describes the key “zones of instability” facing ordinary families. These zones are the areas in which most families face significant challenges, and a corresponding pressure to come up with new methods for dealing with them. The nature of the cultural and economic changes behind instability varies with place. For example, the deep systemic political and economic changes of Russia, the swift economic transformation of China, the rise of a globally proactive India, and waves of change brought on by technology innovation and the emergence of new organizational forms and work patterns in the Silicon Valley are all creating instability for families. Understanding how ordinary families perceive, absorb, and respond to these shifts is critical for those who are working in BRIC+S or who plan to in the future.
We identified the zones of instability through in-the-field ethnographic work as part of the Technology Horizons Global Ethnographic Network (GEN). (For more on GEN, please sidebar on page 4.) The goal of GEN is to build long-term relationships with a network of families in BRIC+S to uncover the drivers of daily life that are related to technology adoption and use. The information gleaned from ethnographic work with these families, in turn, supports our forecasts around technology and innovation.

To date, we have conducted interviews and research in Russia, India, China, and the Silicon Valley. Field work in Brazil, the “B” in BRIC+S, is scheduled to begin in 2007.

**Understanding the Nature of Accelerating Change**

The United States is unusual for having had a long period of relatively stable economic growth, but even so, technological and cultural changes have led to major new institutions, lifestyles, and markets such as social software, retirement jobs, and hybrid automobiles. In Russia, India, and China, where the bulk of our interviews took place, the post-World War II period has seen radical economic ups and downs, the decline of socialism, and the rise of an American or Western-style globalization. (See the Appendix for a timeline of milestone BRIC+S events since 1945.) For many of the families we spoke with, instability itself is nothing new. But what is new is the nature of instability, and the extent to which discontinuities or disruptions in BRIC+S impact the rest of the world.

Our analysis of dozens of interviews generated eight distinct “zones of instability,” that is, areas from which new needs, fears, desires, and risks are emerging (see Table 1). We believe these are the areas where innovative practices, new patterns of technology, product, and service adoption, and new use patterns are born. Gaining an overall understanding of the key zones of instability and their meaning in people’s lives is a fundamental step in building reliable forecasts and understanding technology markets.
Concern for the degradation of the natural environment is front and center in people’s lives. Many of the families we spoke with are watching their water, air, and soil become increasingly polluted. Yet the same industrialization processes that create pollution are also producing better standards of living and rapid urbanization, transforming the built environment in which people live. These changing environments are posing risks and opportunities for families.

Post-socialism in Russia and China and industrialization in India and the Silicon Valley have created distinct infrastructure legacies that shape development and impact daily life for all households. As top–down infrastructures are slowly replaced by bottom–up infrastructures, everyday decisions for families will change.

Russia, India, China, and the Silicon Valley are hotspots in the global economy; their domestic employment conditions are driven by increasing investment, competition, and the emergence of entirely new industries (e.g., offshoring, call centers, and virtual-asset production). For workers this means a volatile job market with great opportunity for professional mobility, and great risk for unemployment. This is exacerbated in post-socialist Russia and China, where lifelong employment by the state is a thing of the past.

Rising health care costs, extreme disparities in access, aging populations, slow disintegration of state and employer health benefits, evolution of new health concerns and treatments are all concerns for nearly every family we interviewed. Whether it’s saving money for the next hospital visit, avoiding infectious disease after severe rains, or ensuring water quality for the village, a focus on health is what allows families to avoid risks successfully. As new categories of health risks emerge, new solutions will be needed.

Tensions between generations are nothing new. Despite these tensions, a mutually beneficial social contract exists between the generations—young people are guided into the world by elders and elders are taken care of by the young in their old age. However, with increasing global influences, notions of obligation and loyalty among generations are shifting, with new social contracts and uncertainties emerging.

Twenty years ago there was no private property regime in Russia or China. Housing prices in the Silicon Valley were one-third of what they are today, and in India, newly wealthy professionals are buying properties at previously unheard of prices. And yet for many others in these places, property ownership is out of reach. From urban slums and new housing cooperatives to unofficial townships and new mortgage and credit schemes, property is at the heart of change in people’s lives. Families are being forced to develop strategies to cope with a new crop of uncertainties around property.

Morals and values are always said to be changing in the modern world, with generation after generation feeling an increasing loss of innocence. Some see the evolution of values as positive adaptations to present-day circumstances. Others look to the past for stability and certainty. BRIC+S families see shifting values affecting their daily lives.

The increasing integration of BRIC+S onto the global stage demands a certain level of identity flexibility. Whether the call-center worker in Bangalore who speaks Australian English, American English, or British English depending on the time of day, or one of many circulating entrepreneurs between Silicon Valley and China, identity instability is both a risk and an opportunity. New categories of identity are emerging out of this zone of instability, some local and some that cross country and regional boundaries.

### Table 1
Zones of Instability Form the Platform for New Needs and Practices

<table>
<thead>
<tr>
<th>Instability Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Environmental Instability</td>
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Source: Institute for the Future
introduction

THE TECHNOLOGY HORIZONS GLOBAL ETHNOGRAPHIC NETWORK

What Is GEN?
When one thinks about the inputs that inform forecasting, interviews with experts, mining quantitative data, conducting surveys, or holding expert workshops to aggregate expert opinion are the kinds of things that usually come to mind. All of these are tried-and-true tools of the trade that we at the Institute for the Future (IFTF) have honed over several decades. We have noticed, however, how far removed much of what we read even in the best academic and business literature is from the reality we see when we visit families and focus on daily life—especially outside of the United States.

For example, while much of the Western press is writing about the threat of the return of authoritarian rule in Russia, what we see on the ground is people who are not afraid to speak their views, a diversity of opinions openly expressed, and the mushrooming of blogs and alternative radio stations. It is not that there aren’t authoritarian tendencies in Russian society and government today; but the meaning of “authoritarianism” looks very different when you talk to Russian families than what you read in the New York Times.

For India, we read about the constraints of poverty, the challenges of urbanization, and the risks of disease-prone slums. We also read about the small but growing entrepreneurial elite. However, we rarely read about what it is like to live in one of the new “Silicon Valley like” enclaves, where newly rich and the poor intertwine in new types of relationships and where the pervasive do-it-yourself culture that drives much of the innovation in India thrives. We only learn about this through conversation with families. If we listen, we find that what we see as trash is seen by local families as resources for the production of goods in the global economy.

The purpose of the Global Ethnographic Network (GEN) is to give a voice to these human stories and integrate them into our forecasts. We call it bottom-up forecasting—integrating first-hand experiences, observations, and conversations with ordinary people into our forecasts.

GEN is an international network of families ranging from highly educated knowledge workers to rural villagers and migrants in urban centers in BRIC+S. Our ongoing interviews and observations with them reveal their views of what the future holds, and the risks and opportunities on the horizon.

Why BRIC+S?
We are doing field work in four strategically important countries that are key players in the creation of a global future: Brazil, Russia, India, and China (BRIC). To these we added Silicon Valley for comparative purposes and because it is a nexus of global technological and social innovation.

With the rise of BRIC and other emerging markets on the world’s stage, a new frontier for technology innovation and adoption is appearing. Multinational companies have saturated affluent and educated consumer segments of developed markets with their offerings. The next frontier is the less affluent, new users in the rest of the world. And in a world increasingly connected by webs of capital, people, media, and ideas, the social, economic, and political changes that take place in these countries will become more important to our own futures in more developed nations.

Residents of megacities of India and Latin America or rural communities in Russia and China can no longer be overlooked—as sources of innovation, new user models, new consumer markets, and new social movements that will shape our collective future.
Environmental instability—large-scale changes in the natural or built environment caused by humans or nature—can be seen in all developed and developing regions in the world. In many developing countries, the degradation of the environment is front and center as a limiting or dangerous factor of daily life. For example, 2005’s massive rains in Mumbai, India and subsequent flooding in the city disrupted economic commerce and created conditions ripe for the outbreak of infectious diseases that ultimately claimed many lives in the days and weeks following. Man-made activities also bring dramatic changes. Highways are built where there were none before with new businesses appearing and old villages disappearing along their lengths; in fields where cows once grazed there are now hi-tech companies. Many of the families we spoke to see their water, air, soil, and food increasingly under threat as result of these environmental changes. This is understandable as the same industrialization processes that are improving standards of living are also leading to environmental degradation.
What This Means for Families

Increased environmental monitoring of goods that enter the household. Families are spending more time and effort monitoring the quality of goods that enter their households. Environmental instability, real or perceived, is embedded in the goods of everyday life. Among some of the families we interviewed, we found concerns ranging from furniture saturated with toxic formaldehyde and counterfeit products to shrimp raised in chemical baths and pesticide-laden foods. Some Chinese families rely on Western brands and retailers to navigate around these risks. In Russia the practice is different. Post-socialist Russia is experiencing many of the same economic pressures, regulatory weaknesses, and resultant environmental challenges as China, but here GEN families’ concerns are focused on Western packaged foods that are seen as “unnatural,” made of chemicals rather than natural ingredients. There is a widespread preference for local Russian-made products that are viewed more natural, perhaps more authentic, and certainly safer.

Wei Haiping, her husband, and 13-year-old son live in a large apartment on the edge of Beijing, in one of Asia’s largest housing complexes. Her family moved from coastal China to Beijing several years ago when her husband took an executive position with a Chinese server manufacturer, which has provided them with a high income. Wei’s concern about the polluted natural environment in the city was evident as she told us about how she selected certain kinds of furniture and bought produce only at a well-known Taiwanese supermarket. In Wei’s bedroom, we saw a new set of wicker furniture that she had chosen specifically for its claim to have used environmentally sound manufacturing processes. “The fumes are so bad when you buy cheap or low-quality furniture,” she told us.

Bottled water is ubiquitous in urban and rural China for all but the poorest households, as families try to limit their contact with pollutants.
**Extreme mobility.** Driven by changes to the built environments in and around cities, people are traveling much farther to work. Across BRIC, cities’ edges are expanding to include once-rural villages. At the same time, larger numbers of middle-class families in India, Russia, and China are moving (or being forced to move in the Chinese case) to newly developed suburbs where they can afford a larger home and gain a sense of increased physical security. City centers in India are being transformed by waves of relatively uneducated working poor, fueling the growth of slums. Add to this the growing numbers of private vehicles on the road and resulting traffic slowdowns. The result? Environmental conditions around cities are increasingly dynamic, causing instabilities in people’s lives around housing, air and water quality, and even their family and social lives.

Udit Kumar lives on the rural outskirts of Bangalore, India where he and his family have been living for generations farming the land among the larger community of families that make up the village. Udit travels to Bangalore each day and works for the City Armed Resources Service—charged with controlling and breaking up any disturbances in the city. He says, “My father encouraged me to get a regular job when the city was in the making.” Still, after decades at this job he has not been able to leave the village and continues to farm, waking up early to take the bus to work at 3:30 am to arrive at 6:30 am. After another 3-hour return trip home, he tends the fields and animals, only to get a few hours of sleep and return to Bangalore once again early in the morning. When asked about his friends and social life, he said, “I have a lot of friends in Bangalore. We know each other because our roots are the same. But there is no time to spend together in Bangalore. Mostly our conversations take place on the bus.”

Some people spend up to six hours a day commuting to and from work in Bangalore on buses like this. These extreme commutes combined with required household chores leave little time for family or friends, unless they ride the bus, too.
**Newly diverse residential areas.** Certain Asian and Latin American cities have long been known for their radical contrasts in social and economic status within densely populated urban areas. High-rises with slums at their feet are the most visible manifestation of this inequality. Indeed this describes much of the urban landscape in many of the megacities throughout the world such as Mumbai, India and Shanghai, China. However, within the last two decades of globalization these types of contrasts are increasingly common in places that have traditionally not been “urban” at all. The social and economic ties of the city are extending far outside official city boundaries. Growth is no longer incremental from the outskirts, but rather disruptive as it leaps great distances from the city’s edges. We were surprised at how many of the families we visited were living amidst heterogeneous zones of economic development, whether it was a former village head in China living in a new apartment complex built on his fields, or a Russian family living in a new gated community. This new, closer proximity to diverse social and economic interactions doesn’t necessarily mean that people are coming into more contact with one another, however. It may be that the differences between these contrasting spaces will become more meaningful as they jostle together, or remain parallel worlds coexisting in the same physical space.

We interviewed Gopal (with his extended family of brothers and sisters) at his village home in Gunjju, an area outside of Bangalore. Gunjju was once considered the rural outskirts. Today, it is part of the larger suburb known as Whitefields, home to some of the world’s largest information technology companies’ operations in Bangalore. Here you not only find the largest concentration of technology companies but also a growing number of gated communities and a lifestyle very similar to the Silicon Valley. In fact, the California Mission architecture and aesthetic can even be seen. Business meetings in hotel restaurants and people in suits are common sights. But if you take a turn down a dirt road you might not realize any of this is happening. Gopal and his family (particularly the women) are unaware of the changes just outside their village. Indeed, they are a mere 3 miles from India’s Silicon Valley, but when asked about the most significant changes in the last five years, the family made no mention of the “new Silicon Valley” nearby. Instead, one family member said, “Five years ago we did not even have clothes to wear.” When asked about what has remained the same, one person replied, “I think our sheep have remained the same.”
A defining characteristic of economies in transition, such as Russia and China, is the demise of old established and familiar institutions that provided a sense of stability and the nascent or simply non-existent nature of new ones in their place. Two kinds of infrastructure instabilities were identified from our interviews and observations.

- **Social institutions.** This includes the provision of various social services such as police, ambulance, health care, education, social security, and retirement benefits. Many of these services in BRIC are limited to begin with. In Russia where some services were once guaranteed at a minimal level, they are no longer available. And the establishment of new institutions seems a distant prospect in most of BRIC that are engaged in debates around whose responsibility it is to provide such services—the government, the private sector, individuals, or family networks.

- **Physical infrastructure.** Many of the basic infrastructure services (e.g., electricity, communications, sewage, water, and transportation) are limited, erratic, or non-existent. Some of the services previously provided by the state are being privatized, sometimes resulting in better services, but more often creating a vacuum. At the same time, the fast growing economies like India and China are witnessing the construction of massive new infrastructure projects, enabling better services in some areas but also creating social and economic displacements.
What This Means for Families

Pervasive DIY culture. An emergent DIY culture in Silicon Valley is all the rage among the techie community. Magazines like *MAKE* and numerous online communities exchange ideas on how to “hack” existing devices or build new things, from electric cars to new kinds of satellite radios. While these behaviors are largely the purview of passionate enthusiasts eager to show off their inventions, in BRIC, DIY culture is a necessity for everyday survival. When nothing works quite right and the infrastructure is unreliable or non-existent, virtually every family is forced to “hack” and build its own infrastructure. DIY behavior is not an expression of passion—it is a necessity of life.

Raghu Pratap retired from the Indian Railways a few years ago, and settled in Ghaziabad, just outside of Delhi. He believed that living near the national capital would provide good educational and employment opportunities for his children. Pratap built his own house in an illegal colony just off the National Highway hoping that proximity to the highway would lead to rapid economic development in the area and the legalization of the colony. His bet has not completely paid off so far. Pratap and his neighbors lobbied local politicians and were able to get electricity and water. They are still hoping for paved roads and a drainage/sewer system. In the meantime, community members have built their own makeshift roads and temporary drainage systems.

In true DIY style, families outside of Delhi built a temporary drainage system for their neighborhood until the government decides to install a permanent one.
Infrastructure uncertainties require building redundancies. To ensure uninterrupted access to infrastructure resources, families are required to build redundancies into the system. Many families store extra water or have large extra containers for carrying water in case the central water supply is interrupted; some homes have extra supplies of food, generators, kerosene lamps, extra computers, and subscriptions to multiple communication networks as a means of ensuring uninterrupted service. While the specifics vary, we saw families building infrastructure redundancies in all study countries.

The Trukhin family lives in a typical middle-class apartment building in St. Petersburg, Russia. Electricity, heat, and running water are provided, but service is notoriously erratic. In the summer, hot water can be turned off, without warning, for up to a month at a time. To ensure a constant supply of hot water, the Trukhin’s adult son installed an electric water heater. They use the publicly provided hot water for washing dishes or clothes, but for washing their hair or the children, they turn on their own heater which is supplied with their own water that they trust.

This cartoon shows an Indian family with a teenage hacker overcoming the infrastructure shortcomings that matter most to him.

Social networks fill gaps in existing infrastructure. Social capital is the value of relationships a person accumulates in a lifetime, relationships that enable access to a wide range of resources. Along with physical and financial capital, social capital is an important asset, and one that is not always appreciated or even recognized by traditional economic theory. Nevertheless, social capital often supplements or substitutes for money and other tangible resources in a person’s portfolio of assets. Indeed, in BRIC where modern economic and legal institutions are not well established, social capital is critical to survival. It often confers status or enables families with limited financial resources to obtain necessary goods and services. Social networks also serve as a form of insurance, somewhere to turn to in times of need.

On the outskirts of northwestern Beijing, suburban gated communities lie amidst brick villages, industrial parks, and university campuses. In this setting, a family from a rural northeastern Chinese village has made their home for the last two decades. The Liu family makes its living selling fruit to the staff and families of a local university. Mr. Liu sleeps at the fruit stall, while his wife takes care of their daughter at home in the room they rent. The Liu’s have been able to not just survive but thrive because of their social skills and ability to cultivate friendships with their customers. Nearly everything in their room was a gift including their bed, their many appliances, and even an air conditioner. Mrs. Liu talks about her long-term relations with elderly members of the university staff, who bring her hot soup at the fruit stall in the winter, and with some of the foreign students at the university, who have sent her postcards and photos from Germany and elsewhere.

The Liu family, fruit sellers near Beijing, has built up a great deal of social capital with students and faculty at the local university. It has enabled them to live beyond their means. Here they are pictured with one of their many friends, a German foreign exchange student from the university.
Brazil, Russia, India, China, and Silicon Valley are being linked to the global political economy in ways that have shaken the foundations of everyday life. People in Russia, India, and China are increasingly joining a global labor pool by working for foreign companies and individuals, either at home or abroad. Such work spans highly skilled labor (e.g., programmers and nurses) to lower-level service jobs (e.g., maids and day laborers). At the same time, the work environment everywhere has become more volatile. In the last 25 years, capital flow has been restructured so that corporate workplaces are born, merge, and perish frequently. Promises of lifelong employment, whether with companies or the government, no longer hold in the former socialist economies of Russia and China. People there are learning the vagaries and uncertainties of the new market economy, something workers in Silicon Valley are very familiar with. This instability is reflected in every family in how they plan for employment and succeed at work.
What This Means for Families

**Education is not a guarantee for success.** Education, in many countries, has been seen as the first step on a path that prepares individuals for future success, and provides the means to care for their families who depend on them. However, using education as a strategy requires deep and fairly accurate foresight. Educating children today presumes that their education will have salience decades hence. If work changes too radically or rapidly, those educational strategies may become unstable. Today the pace of training, skills mastery, and innovation has increased, so that some families already aren’t sure if their investment in educating their children will pay off. This instability is particularly unnerving in societies where education held a nearly sacred status as the avenue of economic mobility just a few years ago, such as Russia or China.

Academic careers were greatly valued in Russia during the Soviet Era. University professors had high social status, relatively high salaries, and access to a variety of perks. Such is no longer the case. Many professors find themselves out of work, scrambling to get any job they can lay their hands on—in best-case scenarios doing consulting work, in the worst, working in restaurants. University jobs, like all government jobs in Russia today, come with low salaries. As a result, many academicians have to look for supplemental sources of income, often working two or three jobs. Valeria Trukhin is a 75-year-old former chemistry professor in St. Petersburg. She lives with her husband, son, his wife, and their two young children in a three-bedroom apartment. Valeria left her academic job ten years ago during the collapse of the Soviet Union when government could not afford to pay workers. She was lucky to find an administrative job with a newly founded private company. Despite years of service and good credentials, she makes less money than her son who is a freelance photographer. His university degree in meteorology has little relevance to his career.

The new employment market has created opportunities for some, and a decline in living standards for others.
New work opportunities are reshaping traditional identities. The cast of characters that is joining the workforce has changed. Women, especially in urban settings, have unprecedented access to education and new work opportunities, posing a moral challenge to beliefs about family roles. At the same time, as seen in Russia and China, the collapse of old-fashioned egalitarian rhetoric has meant that new barriers have been erected to women and minorities. New opportunities in the workplace are resulting in the emergence of new collective identities and a rethinking of older ones. For example, in India a woman who is willing to move where the work is brings economic opportunities to her family, but may also pose a moral threat to the sanctity of the joint family and traditional status relationships.

Anil Gowda and his wife, Suvarna, live in a joint household with his brother and his family in Bangalore, the Silicon Valley of India. Anil is a quality-control engineer and his brother is a software marketing expert. Suvarna is a Montessori teacher. For them, the decoupling of traditional status and employment success, a change that has posed a major risk in other households, has been an opportunity. Vijay is lower caste, yet he and his brother have succeeded in India’s more egalitarian high-tech environment.

Despite lower-caste status, Vijay, his brother, and their families enjoy a very comfortable lifestyle thanks to working in India’s egalitarian high-tech industry.
Expanded geographic employment horizon. Globalization, greater connectivity, improvements in infrastructure, economic growth, and political shifts are all factors driving people in BRIC+S to increase their geographic scope when considering job opportunities. The results are more migration, increasing distance traveled for work, and the emergence of floating populations, such as fruit sellers who migrate to trade their goods or professionals whose job horizon spreads from Santa Clara to Bangalore. New levels of mobility create numerous new niches in the ecology of risk and opportunity.

Wu Bing is a second-grade boy in rural Sichuan province, in the southwest of China. He hasn’t seen his mother in eight months since she left home to make the 3,000-mile trip across the country to the “factory floor of the world”—the Shenzhen Special Economic Zone. The family isn’t sure exactly where she is or what she’s doing, only that she’s sent home 400 RMB (about $50 US) twice, money the family needs for daily necessities and to pay for Wu Bing’s grandmother’s illness. As the wife of a struggling farmer with a gambling habit, Wu’s mother was ready to go where necessary to get a decent job.
In each of the study countries, the relationship between households and health care institutions is slowly but surely shifting; whether privately or publicly owned, employers are providing fewer subsidies than in the past. With an overall rise in health care costs, many families are challenged to pay for services. Though far apart in many other respects, an unemployed computer programmer in Silicon Valley and a poor rice farmer in Sichuan, China know that a single accident or illness can seriously compromise household stability. Partly in response, the global health marketplace has been flooded with direct-to-consumer products and services, everything from the emergence of private hospitals in China to hybrid forms of traditional quasi-spiritual healing practices in Brazil and the Silicon Valley. Finally, the increase of information available through television and the Internet means that families are more aware than ever of the effects of environmental change on their health. Families in all regions are keenly aware of the potential in the health domain to create great instability in their lives.
What This Means for Families

Creating a patchwork quilt of health resources. As government and employer-sponsored benefits decrease, families are turning to friends, relatives, products, services, and new practices to fill the gap. This has always been true for the poorest citizens of any country; but the social safety net for China’s rural families is now non-existent and even the new middle classes of Russia, India, China, as well as the families of Silicon Valley, increasingly perceive themselves at risk of economic tragedy if a family member gets sick and they don’t have insurance or other coverage.

Wu Bing is a second-grade village boy in China’s Sichuan province. His grandmother is an invalid whose contribution to the household is much missed, especially now that Wu’s mother has left the village to work at a factory across the country. Where China’s rural poor used to have access to collective village clinics, the privatization of land and labor in rural China has left some families in a kind of social isolation not seen for the last 50 years. Entirely dependent on their land for subsistence, Wu’s grandfather and father farm their own plots of rice and a few market vegetables, and Wu’s father occasionally works as a day laborer for other wealthier farmers to earn a little cash. Last year the family had to borrow almost a year’s net income to take care of Wu Bing when he was hit by a car on the way to school. They rely on Wu Bing’s aunts to pay for his grandmother’s medicines and doctors’ visits—money his aunts had been saving to buy their own homes. In addition, they often turn to the relatively cheaper traditional Chinese medicines in hopes that his grandmother can get by well enough.
New technology use and media consumption are perceived as health risks. All of the families we interviewed have access to television, which they rely upon for information about their environment and health. Some of the families also seek health-related knowledge online. At the same time, however, some BRIC+S families view these information and communication tools as potentially damaging to their family members’ health and well-being. Chinese parents worry about their children becoming “addicted” to the Internet, and about the effects of “radiation” coming from TV and computer screens. In Silicon Valley, there is concern over the possible ill effects of mobile phones.

One story about health concerns associated with the use of technology came from the head of a Muslim family in Old Delhi. During our first visit with the family, we met the extensive household of brothers, wives, and children and, of course, mother and father. The father, Arif, who has been living in this apartment since before the partition between India and Pakistan, said nothing during the interview. However, when the topic of mobile phones came up he quickly entered the conversation to tell us that mobile phones emit radiation and for that reason he does not allow them in his home.

Young Chinese teenagers flock to netbars, such as this one in Sichuan, while their parents worry about them becoming addicted to online gaming.
Adopting a risk-averse diet. While food has always been a source of both physical and emotional sustenance, we see signs that diet is increasingly an area of risk avoidance. Pollution and lack of health care are out of families’ control, but they do have choices about what they eat and where they buy it. Add in a better sense of health awareness, aging BRIC+S populations, and the growing fear of infectious diseases caused by overcrowding and global mobility, and it’s no wonder that diet has become a locus of anxiety and protection.

The most valuable appliance in the kitchen in St. Petersburg’s Trukhin family is the juicer. It is an important part of the family’s health ecology. The family consists of parents, a son and his wife, and two young grandchildren. Grandmother, Valeria, is a retired chemistry professor and also an avid gardener who grows her own fruit and vegetables at the family’s “summer plot” outside of St. Petersburg. Eating homegrown fruit and vegetables is important, particularly for young children. “Homegrown is better than what you buy in the store,” says Valeria. What the family cannot eat, they freeze or can for the winter, so homegrown produce is available throughout the year. Valeria explains, “We can’t grow everything. So we also buy blackberries and cranberries. In the fall we freeze them and eat them later. It’s for the vitamins.”

When they can’t grow their own, one Russian family purchases fresh fruit at the market when it is in season and cans or freezes it for later consumption to stay healthy.
The debate between tradition and modernity is an old one. Every generation has faced challenges to its beliefs, ideas, and lifestyles from those who see them at odds with what is the traditional societal norm. The BRIC nations have recently witnessed extraordinary economic growth, and as these countries become fully integrated into the global economy, new social institutions and practices are layered on top of existing ones. The family is no exception. The recent economic changes have accelerated the pace of change. Youth, especially, are turning to markets and social networks to mitigate risks that have come about due to change in family structure.

We expect intergenerational instability to increase over the next decade as the world ages at an accelerated pace. For example, thanks to the one-child-per-family policy, China’s over-65 population will make up a larger and larger percentage of the overall population; Russia is experiencing negative population growth due to low fertility levels; and Brazil is expected to see an accelerated aging of its population because of a sudden and rapid fertility decline. Only India will escape this trend as it continues to be one of the youngest nations in the world. In the Silicon Valley, the pace of technological change can make it difficult for workers in their mid 40s and 50s to find new jobs in their field, creating intergenerational tensions in the workplace and at home.
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The rise of the nuclear family creates new frameworks for intergenerational relations and household consumption practices. The large multi-generational family system, which was a norm in India and China, is becoming rarer in urban areas in these countries. As per capita incomes rise, more young couples can afford to live on their own. They don’t have to depend on their parents to provide housing. The number of women joining the workforce has also increased, leading to an increase in two-income households. Very often, women assert their independence by deciding to live away from the husband’s family. Migration is also challenging the traditional family structure. India and China are urbanizing at a phenomenal pace, and as youth migrate to IT centers in India or the manufacturing zones in southern China they are leaving their old parents, and sometimes their young children, behind to fend for themselves.

Anirudha Chatterjee and his wife Jhumpa Bose live in a two-bedroom apartment with their three-year-old son in an upscale suburb of Calcutta. Both of them are professors of Bengali literature at local colleges. They recently moved out of Anirudha’s father’s house. He explains: “I come from a joint family. There were 16 members living under one roof. As there was a space problem—there was no space at all for the next generation—we moved out.” Anirudha worries about his parents because they live very far away, while Jhumpa derives solace from proximity to her parents. However, she is scared for their well-being because both her parents have suffered heart-attacks. Like all small families, they have had to renegotiate household work as they juggle work and family responsibilities. Anirudha helps his wife in shopping, cooking, and taking care of their son. They have also hired a nanny and two part-time domestic helpers to do housework.

China has at least 20 million rural children who have been left alone at home to take care of themselves as both parents migrate to the city to earn cash. In this cartoon, the boy says, “Dad’s gone. Mom’s gone. You get lost, too!” as he kicks away his school bag.

New visions of old age. Parents have traditionally invested in their children’s education with a hope for a better future for their children as well as themselves. In BRIC+S, parents still invest extraordinary amounts of time and energy into their children, but are no longer sure what the payoff will be. Children’s futures may take them anywhere; there are more opportunities for mobility, and old social status symbols like caste in India or party affiliation in Russia and China are becoming obsolete or reconfigured. On the other hand, successful and relatively well-educated middle-class parents might not need their children’s support in quite the same way as they once did. What retirement and old age will look is still unclear for many of our families.

Anandita and her husband Ashish live in a suburb outside of Calcutta with their five-year-old son Indraneel. Ashish works as a janitor at the local university, and Anandita’s life is centered on her son. The family is investing their future in their son’s education. Indraneel studies in a private school far from their home because there are no good schools closeby. Anandita takes her son to school everyday by train, traveling about one-hour one way. While her son attends school, she waits outside, spending her time doing needle-work on saris for a local boutique. On Sundays, she takes her son to an art school in Calcutta to learn how to paint. But when discussing the Indian tradition of the joint family and the practice of children taking care of their parents in old age, she says: “The whole world would have changed by the time our son is grown. ... Our son could be indifferent to us. I feel we should save enough money for our old age. Who knows, there could be nobody to look after us. I don’t want to depend on my son.”

China’s elders can still rely on multiple children and state pensions to take care of them for now, but this will gradually change over the next two decades.
More external influences on youth. Living in a shrinking and digitally connected world, youth today have wider spheres of influence. They are forming their own belief systems that are not shared by their parent’s generation, which often threaten to tip the moral compass of society. In China, although they are still party members, the youth have a new mantra—entrepreneurship—much like their parents who believed in Communism. Their definition of love and marriage has also evolved. In India, the youth are not seen as possessing traditional values like “respect for elders” and “taking care of family and parents.” As influences like the Internet or American movies become more accessible to youth, the distance between younger and older generations will grow greater.

Wang Wei has a good business selling fertilizer to his fellow farmers in Sichuan province. He and his family have built a large house with sheds for storing the sacks of fertilizer, and have opened a small store to sell flour and noodles as well. They farm their own land, eat their own vegetables and livestock, and have enough money for Wang Wei’s wife to travel to Beijing to vacation with her cousin. Mr. Wang has two daughters, aged 19 and 6. His older daughter is a problem child, as he describes her, who spent too much time at one of the Internet cafés in town—time she should have spent studying. When her grades weren’t good enough to get into a good college, the family paid the high entrance fees for a nearby technical college. The Wangs are determined not to let the same thing happen to their younger daughter.
The change in property relationships, from public (government) to private, is at the core of economic transformation in Russia and China. Brazil and India are also in the midst of redefining property relations as many services and products previously provided by the government are being privatized, including transport, energy, utilities, and various social services. This change has been sudden and traumatic in Russia, and slower in China. But no matter the pace, the shift is having dramatic impacts on people’s lives—their needs and desires, what determines their status, how they spend time, and their consumption patterns.

While creating new opportunities for people to acquire material goods, the shift is also creating a whole host of new concerns and uncertainties—how to maintain and protect newly acquired property, how to pass it on to the next generation, and how to treat public goods. It is also necessitating a re-evaluation of what is valuable, what constitutes high status, and what are the new symbols of status. Such traditional status symbols as Communist Party membership or government jobs that include various perks have disappeared, replaced by the global currency of status—money. And those with money today can freely buy all the trappings of high status. But their status and conspicuous consumption clearly stand out in societies that are generally pretty poor.
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Learning to cope with vagaries of property values. Whether you are in Russia, India, China, or Silicon Valley, home ownership brings with it a host of uncertainties to navigate. In Russia, for example, when government apartments were privatized, many people didn’t realize what this meant or didn’t want to pay relatively small sums to transfer apartments they lived in into private hands. Today, such apartments in Moscow or St. Petersburg are valued at millions of dollars. Many of those who didn’t buy early on do not have the money to buy these apartments today, creating an environment of have and have nots. In a very different environment, property values in Silicon Valley are subject to the vagaries of the market. Making the decision to buy in this very expensive market is a gamble rooted in the belief that prices will continue to go up.

Nina Kuhn and her two sons live in a mobile home in south San Jose, California a mile from the IBM campus, where the median house price is over $700,000. Even a $500,000 home in the area, a small condominium, translates to a $3,000 monthly mortgage. Nina is recently widowed, unemployed, and chronically ill. Despite life insurance funds and her son’s part-time job, they were forced to move from a four-bedroom house to a small mobile home, which is bursting at the seams with artifacts from their previous life. She feels frenzied in the clutter of the recent move, “I can’t do it in this disaster!” They are renting their mobile home now, but Nina is desperate to use the rapidly diminishing remnants of her husband’s life insurance policy to make a down payment on the mobile home. Nina reflects, “I can’t afford a house, I can’t afford a condo, but I might be able to afford a mobile home.” This is her dream, but first she needs to attend to her son’s ADHD and her own ailments. She must also mobilize her other son to find a higher paying job, go to college, and find a job for herself. Every dream in the household is intertwined with the purchase of the mobile home.
**Conspicuous consumption necessitates new security concerns and practices.**

Sociologist Thorsten Veblen tied what he termed “conspicuous consumption” to a need for people to show higher status. In fact, why buy new things, particularly ones that have little instrumental value, if you can’t show them off? The dilemma in economies where abundance is not evenly spread, however, is that conspicuous consumption also makes you a target. And in generally poor countries even small signs of “wealth”—a newly remodeled apartment, a slightly newer car, designer clothes—can make someone a target. One of the other consequences of highly uneven income distribution and the lack of effective social welfare and security is that the burden of providing security is left to individuals. The first thing one notices when visiting urban families in most BRIC countries is multiple security measures at the entrances to homes. Signs of personal insecurity are everywhere—cars with wheels removed for the night so they are not stolen, guards or doormen sitting at the building entry, reinforced doors, and elaborate alarm systems to name a few.

The Turins, a middle-class family living in a modest apartment building in Moscow, were robbed three times in the last year. When asked how burglars target apartments, Mr. Turin explained: “They look for certain signs. For example, they look at what types of windows the apartment has. If someone has newer plastic windows instead of old Soviet wooden ones, it means that they have extra cash. They also look if there is an air conditioner outside. See the building across the street? It is clear which ones have air conditioners, who has new wider windows, who has re-modeled the balcony. All of these things identify the people with extra income.”

*By scanning the outside of buildings, burglars look for signs of slightly more prosperous families. New windows or balconies can serve as a subtle sign of affluence.*
In the new property regime, the legacy of a neglected commons remains. One of the remarkable legacies of socialism is disregard for the commons. Anything that is not privately owned is ignored, even if the neglect has negative impacts. The staircase of an apartment building (communal property) leading to the most exclusive and expensive apartment in Moscow may look like it belongs to a rundown, low-rent property. The owners of the exclusive apartment located in the building simply do not see it as their responsibility. In so-called “communal apartments,” where several families share common areas such as the kitchen, bathroom, and toilet, one can see striking examples of people cleaning only what is theirs and not an inch of the common space. While the rhetoric of Communism glorified the virtues of communal living, the reality is that anything even vaguely resembling “communal” property simply means that it belongs to no one and no one cares about it.

At the Golden Summit, the top of Sichuan’s Emeishan, one of the four sacred Buddhist mountains in China, several young, urban, and educated men are talking to their American ethnographer. They are explaining the religious history of the site and the various luminous meteorological phenomena that take place at the summit. It is cool at the summit, and the 10,000-foot altitude takes a toll on the hikers. Hard candies are passed around to provide a quick energy jolt. One of the young men, Wang Xin, talks about the problems of public spaces like this one, which although reputed for its natural beauty, is covered with litter. “How could the government let this happen?” he asks, while he casually and unconsciously tosses his candy wrapper to the ground.

Common areas such as this rundown hallway of a middle-class apartment building in St. Petersburg, Russia are neglected by building residents who own their individual apartments.
The latter part of the 20th century saw the decline of a major belief system—socialism—and the rise of a new global awareness drawn from increased global commerce, mass media, and communication technologies. As we talked about changes in daily life with families, it was clear that many were concerned with what they saw as a shift in basic morals and values. Of course, like intergenerational instability, families have been dealing with shifting moral codes forever. But the families in our study are wrestling with new values such as consumerism, the rise of the individual, the decline of state-mandated morality in places like Russia and China, and a relative relaxation of traditional hierarchies between genders, generations, employers and employees, and in faith communities. Families are witnessing the rise of new frameworks for living, that will shape goals and decisions about the future.
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Loss of a clear definition of success. In Russia and China, faith in socialism has long since withered away, leaving a vacuum into which Christianity, Islam, Buddhism, and a secular individualism are growing. In India, conversely, where religion has played an important role in the everyday life of most Indians, the connection is being lost as joint families disintegrate and younger generations choose not to continue practicing traditional Hindu or Islamic rituals. Caste is also less important for the younger generations who have better access to education and new professional identities, which offer opportunities to succeed outside the caste system. New lives are possible, but a redefined meaning of success is still emerging.

Pan Sijuan is a 23-year-old college graduate in the city of Chengdu, in China’s Sichuan province. After graduating from a college with a degree in management, Pan now works for a privately-owned American company and shares an apartment with two young, single male friends in a typical urban housing complex. Pan is ambitious, devoted to his hobby of mountaineering, and decidedly unromantic when it comes to his relationships with women and his beliefs in a greater good. As he told us, “the older generation had Communism. We have nothing.” Implicit in his statement was the sense that in today’s rapidly changing world, the road to a good life has fewer clear signposts.
Individualistic market values challenging communal moral values. In Russia and China, where the older generations still remember the days of anti-capitalism, family members talk about the rise of individual financial success as a significant measurement of social value—and about their sense that other community values such as charity and educational achievement are being crowded out. As one IT professional in Shenzhen put it, “We don’t have churches, community groups, or other places outside of work where we can be successful in China. There’s only one yardstick for measuring success: money.” And some families worry that common concern for others is giving way to a narcissistic focus on the self.

Luna has a job at a new private school for children in Moscow, where she sees the effects of professional parents’ schedules on their children—and disapproves. “When I started at this school I was surprised to see a lot of the children stayed here overnight,” she explains, as this practice was limited previously to orphanages. “Their parents just don’t have time for them. They are too busy with jobs and making money. On weekends, sometimes grandparents or a nanny come to pick them up and take them home for a day. Many children have psychological problems or are totally unprepared for school.”

A nostalgic advertisement in the Shanghai airport in the summer of 2006 reads: “I like the Me of today, I miss the We of the past.”
Rising standards of living bring a new kind of social isolation. Whether in a village outside of Bangalore or a new residential tower in Russia or China, many families are experiencing the loss of traditional residential patterns characterized by intimacy and communalism first-hand. The rise of mobility associated with employment and the emergence of a middle class that can afford to buy private property have led to a reorganization of residential communities all over BRIC. These changes are in process now, and we have yet to see the emergence of significant practices for knitting together diverse groups of strangers.

China’s major cities are seeing an extended reorganization of residential and social space. The Tangs, in Shanghai, bought a new apartment four years ago, well in time to take advantage of rising housing prices. Now their spacious flat is worth twice what it was. Mrs. Tang, an administrator at a local university, keeps the place spotless, and their teenage son has his own bedroom furnished with a computer and teen-idol posters. Mr. Tang’s collection of jade pieces fills a cabinet. However, life for Mr. Tang, a skilled technician at a local plastics factory, will never be the same. The family moved away from the densely packed urban housing complex that Mr. Tang grew up in—the kind of place where he knew everyone, sat outside on hot summer nights, and played mahjong with his neighbors. In the new building, no one sits outside except a few retired people, even on warm nights. Mrs. Tang has urged him to take part in the community by helping with various community-information dissemination projects, but it’s just not the same. “When I’m retired I can go outside,” he says.

Huilongguan, a Beijing suburb with a population of 300,000, is one of China’s largest planned residential communities. This is a partial map of the community in 2002. Developers are still working to create adequate transportation, employment, schools, and services for its residents.

Source: http://image.baidu.com/
People have different identities depending on the context they find themselves in—whether at home, in the workplace, or online. Identity instability can best be understood as the increasing demand for flexible identities on individuals, communities, and even regions, driven by mobility, connectivity, and global economic integration. Many of the families we interviewed are experiencing identity instability as they find themselves in new contexts: living in new cities, having new work experiences, in new living arrangements, and forming new communities. It is important to note, however, that identity instability is not necessarily a risk. It can also pose opportunities because, by definition, it means identity categories and their ties to status, work, and opportunity are in flux. However, living with identity instability requires a very different sense of self—one that is flexible.
What This Means for Families

Managing and cultivating different selves. Some of the people we interviewed live with very flexible identities as they find themselves in new cities, new types of employment, new neighborhoods, or interacting with new kinds of people near and far. This often requires them to develop the ability to fit into a wider range of contexts and settings. Whether they are learning English in China or HTML in India, people see working on themselves as a way to be effective in the new world emerging around them. Even technology adoption, and particularly the mobile phone, is tied to cultivating the self and becoming modern. Looking ahead, people will need to be even more effective in interacting with a range of different people as employers, collaborators, and partners.

During our interviews with families in Bangalore, India, people often made comments about call-center workers as if they were a whole new category of people. We learned that some call-center workers are prized for their English speaking ability but it does not end there. The call-center worker is indeed a human chameleon as she must transition from being Amrita to Amy as she enters the workplace and then back when she leaves. Sometimes these workers forget to switch back and you hear Indians speaking American, British, or Australian English in cafés. This is not surprising since the most skilled call-center worker shifts between different kinds of English depending on the time of day or day of the week. Indeed there is a whole industry focused on recruiting and training those who want to work for multinational companies. Everything from accent neutralizers to fashion consultants and over-the-counter skin lighteners are available for those looking to create a new self.
Minimizing differences, emphasizing similarities. It is not uncommon for individuals, communities, and regions to suspend their differences and accentuate their similarities in order to define shared interests or purpose which give them a strategic, shared identity. We see this behavior, for example, among the diverse individual entrepreneurs who come to Silicon Valley and are able to move in and out of their native cultures and into the technology culture of Silicon Valley. Rather than being from India, New Jersey, South Africa, or Israel, they are all engineers and share the language of technology and entrepreneurship.

People living with a lot of identity instability cope by minimizing the differences and emphasizing the similarities with others. A young Brazilian couple we interviewed in Silicon Valley made very interesting observations about how this plays out in a place like Silicon Valley. For the husband, he never has felt like a foreigner at work. He says, “When you come to work in the Valley, 70% of the workforce are foreigners—at least in my company. There is not one major nationality. Everybody is there. I think everybody is very open. And it’s very business-oriented, very performance-driven. But I think cultural stuff is definitely not a barrier here, at least for my job. Everybody feels like you’re in Silicon Valley—you don’t feel Brazilian at work. You feel like a Silicon Valley person!”

The “Desi” community includes people from North India, South India, Pakistan, Muslims, and Hindus. The differences that usually define the diversity of India into castes, regions, religions, and languages are suspended in a common overseas identity.
New collective identities. From new mobile Chinese workers known collectively as the “floating population,” to the new economic elite known as the New Russians and “cosmopolitan” status rather than caste designation becoming a popular class for marriage partner searches in India, new collective identities are forming. Advances in information technology, globalization, the proliferation of online affinity groups and social networks, extension and enhancement technologies, global migration, and rates of intermarriage make our current menu of social identifiers—age, race, ethnicity, life stage, class, gender, socioeconomic status, country of origin, and language—inadequate. Although these categories will remain important, they’ll need to become more nuanced to be useful. Out of these new identity categories we are likely to see new collective identities form, defining new markets for goods and services and new constituencies for public policy and political agendas.

The notion of “class” is back in favor in Russia, after being politically suspect during the Soviet period. People have come to readily define class identity by a number of factors—income, goods and services one can afford, and housing. Yury Turin, who lives with his wife and two sons in Moscow, is a former academic who now teaches management courses and does consulting work. He makes a distinction between himself and his former wife: “I belong to a health club in Moscow, and I guess that places me in the middle class. But Irina (former wife), she is in an upper class—she has a personal trainer.” While they started out in the same financial circumstances, his former wife has managed to open a private school, acquire properties around Moscow, and buy the services of a personal trainer, making her a member of what is commonly referred to as “New Russians”—the new moneyed class in Russia.

We have traced the outlines of eight zones of instability for households in Russia, India, China, and the Silicon Valley, showing how BRIC+S families are experiencing change in their daily lives. Many of the transformations we describe are ongoing and will play major roles in shaping social and economic development over the next decade. Businesses and institutions hoping to fully engage people in these places will need to take into account the long-term implications of the changes that arise from instability, including the following.
New Portfolios of Family Resources

Significant change for BRIC+S families involves the redefinition of individual and family relationships with traditional institutions. Institutions that formerly provided job security in Russia and China no longer do so; large companies can no longer be relied on for lifetime employment in Silicon Valley; many educational institutions have been or are being privatized; and many more families have to scramble to obtain health insurance. Many of the families we interviewed are in the process of putting together new portfolios of resources for daily life and establishing new types of relationships to secure their own and their families’ futures and protect against risk. This presents new imperatives for companies.

For example, opportunities are opening up for services that fill the gaps left by traditional institutions. In each country the gap may be different, but in each case it creates opportunities for new players. Insurance of all types, for example, is a relatively new concept in most post-socialist and many developing countries. Yet, as security and services formerly provided by governments disappear, this is emerging as a key need and opportunity. New kinds of insurance are emerging such as micro-insurance, which provides support to middle- and lower-class families that have traditionally been left out of the insurance pool. Similar efforts are being made in the area of micro-lending. Services such as micro-lending and micro-insurance are attempts to enable the participation of the “next billion” people in the economy and create new markets.

Mobility and Temporaneity as a Way of Life

BRIC+S populations are voluntarily and involuntarily becoming more mobile. This mobility is taking many forms—people traveling domestically and internationally for pleasure and business; people migrating in search of jobs; people driving more and using personal cars for transportation. In other words, the mobility profiles of BRIC+S are changing dramatically. Mobility exposes people to new places, relationships, images, and ideas. And this mix of people and ideas is a major driver for sparking and diffusing innovation.

Mobility also shapes the patterns and rhythms of daily life. As IFTF’s research on place and space shows (The New Spatial Landscape: Artifacts from the Future [SR-834]), our routes and forms of travel serve as one of the key principles for organizing daily activities. Factors like choosing to drive or take public transportation or short versus long commutes shape the use of our personal technologies. Not surprisingly i-modes (Internet-enabled phones) caught on in Japan long before they did elsewhere. The technology fit very nicely with the long train commutes that are a staple of daily life in Japan.
Moving forward, whether designing new products, creating consumer segments, or planning the talent pipeline, it is important to look at mobile and temporary population segments, including new migrants and their special needs, because these people are harbingers of new trends both in their home and host countries.

Learning Economy Heats Up

As old models and institutions are falling away, there is a tremendous desire and even desperate need to adopt new models and acquire new sets of skills. This is evident in the drive to study the English language in China, a variety of “how to succeed in the workplace” TV shows in Russia, and do-it-yourself magazines, career advisors, and personal coaches in Silicon Valley. In addition, the introduction of new products often requires training in new practices. In Japan, department stores have often served the role of translating and adapting Western products and practices in the Japanese context. “White weddings” are largely the creation of Japanese department stores. The stores offer classes, advice, and all the products for staging western-style weddings. The combination of rising education levels, increased consumer goods, the retreat of the state, and a whole set of new lifestyle choices has created a tremendous hunger for training and education in a variety of fields, from work to consumer related ones, in BRIC+S.

As companies think about how to position their services and products in BRIC+S, it is equally important for them to consider how to provide training and education around them. To develop new users for existing products, companies need to make it look easy, reduce the distance between the user and the product, and add a learning component. Information and communication technologies have a special role to play here.

Lifestages Get Resequenced

With the diversification of household structures, be it the Indian nuclear family or the multi-generational immigrant family in Silicon Valley, household members are increasingly able to imagine new lifestages for themselves. Old age is being reconfigured not just in the United States and Europe, but in China, where some parents and grandparents can now look forward to leisure activities that their own parents couldn’t have imagined. Across BRIC+S, adolescence is increasingly shaped by shared cross-cultural media experiences such as online video, games, and music. Parenting has taken on a new significance for many BRIC+S families as well. BRIC+S parents perceive the world as changing quickly and becoming more competitive, so they are turning to a range of new expertise, products, and services to help their children succeed in the future. And all of this new knowledge is focused on fewer children than before.

As companies think about how to position their services and products in BRIC+S, it is equally important for them to consider how to provide training and education around them.
As new opportunities open up for people at different stages of life, they will make different choices than the generations before them. As a long-term strategy, companies should develop more effective methods for identifying emerging trends related to new family dynamics and activities related to lifestages, such as divorced mothers in China, or grandparents taking care of children in Silicon Valley.

**Environments Characterized by Change**

It is hard to underestimate the extent of sheer physical change occurring across BRIC+S. With China at the lead, certain BRIC+S areas are taking a few decades to achieve what the United States and Western Europe achieved in a century. The result is an exhilarating pace of urban development and a correspondingly great toll on the environment. Many of the families we spoke with are seeing the city grow up around them, with all of its employment possibilities and high standards of living, while their natural landscape melts away. China, India, and Russia will face mounting environmental problems with urban water supplies, at the very least, which could shape economic development and even lead to social unrest. Businesses are becoming aware of the profit motive in creating “green” products, as they sell to socially conscious American and European consumers. But BRIC+S consumers are likely to be even more worried about the environment, not because of any particular political project but because what they see, smell, breathe and drink has changed over the last 20 years.

It will be important to get ahead of the game in culturally appropriate environmental awareness. Do due diligence on tracking environmental change in your BRIC+S markets, both natural and built. Embedding this awareness into the brand is a long-term strategy that will pay off over the next decade.
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<td>1955 Presidential election; Kibitscheck wins with 39% of the vote</td>
<td>1953 Stalin dies; Khrushchev comes to power</td>
<td>1950 Planning Commission’s goal is to raise the standard of living</td>
<td>1959 &quot;Great Leap Forward&quot; collectivization movement, followed by three years of famine</td>
<td>1950 Hewlett-Packard and Varian Associates evolve from defense industry</td>
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<td>1960</td>
<td>1960s Government industrializes agriculture with encouragement and support from the U.S.</td>
<td>1963 Khrushchev deposed; Brezhnev’s era begins</td>
<td>1966 Cultural Revolution</td>
<td>1960s More than 30 semiconductor firms are founded</td>
<td>1962 SLAC National Laboratory founded</td>
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<td>1970</td>
<td>1970 Trans-Amazonian Highway is constructed</td>
<td>1970 Tata Consultancy Services is first company to export software</td>
<td>1972 President Nixon visits China, initiates rapprochement</td>
<td>1970 Slump in semiconductors in defense leads to shift in civilian applications</td>
<td>1975 Intel 8080 is used by the Homebrew Computing Club</td>
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<td>1980</td>
<td>1980s Early 1980s MST (The Landless Worker’s Movement) is formed, and has since helped more than 250,000 families win title to land.</td>
<td>1986 Chernobyl accident</td>
<td>1980-1981 Wipro and Infosys founded in Bangalore</td>
<td>1985-1990 Personal computing boom</td>
<td>1984-1985 Recession drives shifts to microprocessors</td>
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<td>1990</td>
<td>1990 The economy enters the 1990s with high inflation and unserviceable foreign debt of $122 billion</td>
<td>1991 Coup attempt against Gorbachev; Gorbachev resigns; Yeltsin comes to power</td>
<td>1990 India faces balance-of-payment crisis</td>
<td>1992 Deng Xiaoping puts economic reform agenda on full steam</td>
<td>1990 Silicon Valley recession</td>
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<td>1994</td>
<td>1994 Benedita da Silva is the first Afro-Brazilian woman elected to Senate</td>
<td>1992 Soviet Union dissolves; Russia and 14 other republics become independent countries</td>
<td>1991 Finance Minister Singh enacts measures to allow foreign companies more than 50% equity, and reduce subsidies</td>
<td>1992 Millions are laid off from state-owned enterprise jobs</td>
<td>1992 Average wage in Silicon Valley 50% higher than national average</td>
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<td>1994</td>
<td>1994 “The Real Plan” (a successful economic stabilization program)</td>
<td>1993 Privatization leads to high inflation, ruble devaluation, unemployment, and general economic collapse</td>
<td>First technology park established in Bangalore</td>
<td>1997 Hong Kong returned to China</td>
<td>1993 Commercial development of the Internet</td>
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<td>1999 Comprehensive urban housing reform, state no longer allocates housing</td>
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### Appendix – BRIC+S Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Brazil</th>
<th>Russia</th>
<th>India</th>
<th>China</th>
<th>Silicon Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Luiz Ignacio Lula da Silva becomes Brazil’s first working-class President</td>
<td>Moscow Theater siege by Chechen rebels</td>
<td>Indian industries attract venture funding capital. VCs invest $1.3 billion in India, a record growth of 69% from 2003</td>
<td>China joins the World Trade Organization</td>
<td>Minority majority pop, unemployment rate 1.3%, median housing $466,000; Dot.com Bubble peaks</td>
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<td>2003</td>
<td>Putin wins second term as president, economy on the upswing, all the main TV stations are government owned</td>
<td>2001</td>
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<td>2001-2004</td>
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<td>First government scandal revealed</td>
<td>SARS virus outbreak</td>
<td>Russian ruble $100,000, China’s launches first manned spacecraft</td>
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<td>Dot.com Bust; unemployment 9.1%; VC investment plummets; median income drops $11,000 in three years</td>
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<td>2006</td>
<td>Brazil pays off debts to IMF, internal public debt reaches all time high</td>
<td>2006</td>
<td>2005-2006</td>
<td>2005-2006</td>
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<td>Brazil is the 10th largest economy, but economic growth lags comparable Latin American countries</td>
<td>Urban housing expenditures more than double that of 1993</td>
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<td>Recovery underway; worker productivity 2.5 times national average; median housing price $475,000</td>
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