Marketing is linked to a host of public health and social problems facing children today. The World Health Organization and other public health institutions identify marketing to children as a significant factor in the worldwide epidemic of childhood obesity. In addition, advertising and marketing have been associated with eating disorders, sexualization, youth violence, family stress, and underage alcohol and tobacco use.¹

Among the most troubling ramifications of allowing marketers unfettered access to children is the erosion of creative play, which is central to healthy development. The commercial forces that are preventing the development of children’s natural capacity for play are daunting. But there is a burgeoning movement to reclaim childhood from corporate marketers and a resurgence of interest in protecting and promoting hands-on, unstructured, child-driven “make-believe.”²

Why Play Matters

Play is both culturally universal and fundamental to children’s well-being—factors that led the United Nations to list it as a guaranteed right in its 1989 Convention on the Rights of the Child. Play is critical to healthy development, and ensuring children’s right to play is an essential building block toward a sustainable world. Yet in the twenty-first century, hands-on creative play is an endangered species. Perhaps the most insidious and powerful threat to what is every child’s birthright is the escalation of commercialism in young people’s lives.³

The ability to play creatively is central to the human capacity to experiment, to act rather than react, and to differentiate oneself from the environment. It is how children wrestle with life and make it meaningful. Spirituality and advances in science and art are all rooted in play. Play promotes attributes essential to a democratic populace, such as curiosity, reasoning, empathy, sharing, cooperation, and a sense of competence—a belief that the individual can make a difference in the world. Constructive problem-solving, divergent thinking, and the capacity for self-regulation are all developed through creative play.⁴

Children at play may enthusiastically conjure cookies out of thin air or talk with creatures no one else can see, yet they still remain grounded in the “real” world. Once children develop the capacity for simultaneously recognizing

Susan Linn is with the Campaign for a Commercial-Free Childhood and Harvard Medical School.
an object for what it is and what it could be, they are able to alter the world around them to further their dreams and hopes and to conquer their fears. When children are given the time and opportunity, they turn spontaneously to “pretend play” to make sense of their experience, to cope with adversity, and to try out and rehearse new roles. They also develop the capacity to use pretend play as a tool for healing, self-knowledge, and growth.

It is traditionally assumed that when children have leisure time, they are engaged in some kind of self-directed, or “free,” play, the motivation for which generates from within, rather than from external forces. But for the first time in history, that is not the case. Between 1997 and 2002, in just five years, the amount of time that six- to eight-year-old children in the United States spent in pretend play—such as dress up or play based on imaginative transformations—diminished by about a third. More than half of parents in Japan and France characterize shopping as a play activity. An international survey of 16 countries found that only 27 percent of children engaged in imaginative play, and only 15 percent of mothers believed that play was essential to children’s health.5

Babies are born with an innate capacity to play. When commercial interests dominate a culture, however, nurturing creative play can become countercultural: it is a threat to corporate profits. Children who play creatively are not as dependent on consumer goods for having fun. Their playfulness, as well as their capacity for joy and engagement, rests mainly within themselves and what they bring to the world rather than what the world brings to them. They are active rather than reactive, and they do not need to be constantly entertained.

Children who engage readily in make-believe are masters of transformation. They can conjure something out of nothing and readily turn a mere stick into, for instance, a wand, a sword, the mast of a boat, or a tool for drawing in the sand. Their enjoyment does not depend on the novelty of acquisition but rather on what they can make of their environment. They are thus more likely to have the internal resources to resist messages that push them toward excessive consumption.

There have been no longitudinal studies exploring the long-term ramifications of children deprived of creative play. But a survey of 400 major employers across the United States found that many of their new young employees, whose childhoods have been shaped by intensifying commercialization, lacked critical thinking and basic problem-solving skills, as well as creativity and innovation, all of which are nurtured in creative play.6

The Rise of Commercialism

The fervor for government deregulation that began in the United States in the 1980s, in combination with the digital revolution, has resulted in an unprecedented escalation of commercialism in the lives of children. In 1983,
U.S. marketers spent some $100 million targeting children, a paltry sum compared with the $17 billion they are spending today. While much of the impetus for marketing to children originates in the United States, the trend is promulgated worldwide by multinational corporations. (See Table 7.) Food companies alone spend about $1.9 billion annually marketing directly to children around the world.\(^7\)

Commercial entertainment generated in the United States has long been one of the country’s most profitable exports. Mickey Mouse was recognizable around the world long before the escalation of advertising and marketing to children in the 1980s. But the combination of globalization, sophisticated media technology, and U.S. anti-regulatory policies has made the world’s children more of a target than ever before. Technological advances such as video and DVDs, as well as cable and satellite television stations, increase marketers’ access to children. With the Internet and video games now accessible on MP3 players and cell phones, the pathways to children are increasing.

The mere introduction of electronic screen media into a culture can profoundly influence societal norms such as standards of beauty, diet, and interpersonal interactions. A classic study showed the rise of eating disorders among women in Fiji after television was introduced to the island in 1995. The introduction of specific programming also has an effect. In 1994, just after World Wrestling Entertainment television programming came to Israel, social scientists documented what they described as an epidemic of schoolyard injuries caused by children imitating wrestling moves.\(^8\)

The two companies that dominate the world toy industry, Hasbro and Mattel, create films and television programs to promote their products worldwide. In 2009, Hasbro announced plans to form its own U.S. children’s cable television station in partnership with the Discovery Channel, featuring popular brands such as Tonka and My Little Pony. In a recent international study of children’s leisure activities, researchers expressed surprise at how little differentiation there now is in how children around the world spend their leisure time.\(^9\)

Critics of globalization characterize the commercialization of childhood as a powerful vehicle for inculcating capitalist values in very young children. The underlying message of nearly all marketing, regardless of the product being advertised, is that the things people buy will make them happy. Aside from the fact that research on happiness shows this to be false, immersing children in a message that material goods are essential to self-fulfillment

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### Table 7. Childhood Marketing Efforts from Around the World

| **Disney English Language Program** | In China, parents pay $1,000 per semester to send children to Disney-themed language programs. Some children reportedly learn as few as four words, yet their efforts are rewarded with Disney trinkets and access to government-banned Disney films. |
| **McDonald’s Happy Meals** | As McDonald’s expands its presence in India, increasing numbers of children are sampling toys from films such as *Ice Age Three* and *Madagascar* with their chicken burgers and French fries. |
| **SpongeBob SquarePants** | A “live” version of the most popular animated character on Viacom’s Nickelodeon channel recently visited schools in Namibia. The show is aired in 171 markets around the world in 25 languages. |

*Source: See endnote 7.*
promotes the acquisition of materialistic values, which have been linked to depression and low self-esteem. Research shows that children with more materialistic values are also less likely to engage in environmentally sustainable behaviors such as recycling or conserving water.\textsuperscript{10}

**The Impact of Commercialism on Play**

Children’s favorite leisure activity these days, in both industrial and developing countries, is watching television. In the United States, children spend more time in front of television screens than in any other activity besides sleeping: about 40 hours a week outside of school. Nineteen percent of U.S. babies under the age of one have a television in their bedroom. In Viet Nam, 91 percent of mothers report that their children watch television often, as do more than 80 percent of mothers in Argentina, Brazil, India, and Indonesia.\textsuperscript{11}

Research indicates that the more young children engage with screens, the less time they spend in creative play. Unlike other media such as reading and the radio, which require people to imagine sounds or visual images, screen media does all of that work. While there is some evidence that certain screen media can encourage children to play creatively and enhance specific kinds of learning, when screens dominate children’s lives—regardless of content—they are a threat, not an enhancement, to creativity, play, and make-believe.\textsuperscript{12}

The ability to view programs on DVDs, MP3 players, and cell phones, as well as on TiVo and other home recording devices that provide programming “on demand,” makes multiple viewings of the same program a new fact of children’s lives. Across platforms, electronic screens are the primary means for marketers to target children. Loveble media characters, cutting-edge technology, brightly colored packaging, and well-funded marketing strategies combine in coordinated campaigns to capture the hearts, minds, and imaginations of children—teaching them to value that which can be bought over their own make-believe creations.

Today, more than ever, children need the time, space, tools, and silence essential for developing their capacities for curiosity, creativity, self-reflection, and meaningful engagement in the world. But when consumerism and materialistic values dominate society, creative play is no longer valued. The toys that nurture imagination—blocks, art supplies, dolls, and stuffed animals free of computer chips and links to media—can be used repeatedly and in a variety of ways, diminishing the need to spend money on new toys. Toy libraries are another way to reduce spending on yet another new item. (See Box 7.)\textsuperscript{13}

The electronic wizardry characterizing today’s best-selling toys makes for great advertising campaigns. They look like fun. But they
are created with a kind of planned obsolescence. They are not typically designed with the goal of engaging children for years, or even months. They are designed to sell. If interest wanes, so much the better—another version will soon be on the market. Toys that talk and chirp and do back flips all on their own take much of the creativity, and therefore the value, away from play activities.

Brand-licensed toys are an especially large business, bringing in an estimated $6.2 billion just in the United States in 2007. Toys that represent familiar media characters whose voices, actions, and personalities are already set rob children of opportunities to exercise their own creativity—especially if kids are familiar with the program on which the character is based. Unless some way is found to prevent marketers from targeting children, their play activities will foster imitation, reactivity, and dependence on screens rather than creativity, self-initiation, and active exploration.

Nurturing Play in a Commercialized World

Protecting children’s right to play is inextricably linked with their right to grow and develop without being undermined by commercial interests. Laws protecting children from corporate marketers vary widely, with many countries relying primarily on industry self-regulation. The most stringent laws are in the Canadian province of Quebec, which prohibits television advertising to children under 13, and in Norway and Sweden, which prohibit such advertising to children under 12. In Greece, toy ads cannot be aired before ten o’clock at night, and ads for war toys are prohibited entirely. France has banned programs on broadcast television aimed at chil-

Box 7. Toy Libraries

A clever way that many parents are reducing consumerism in childhood is through toy libraries. These are like book libraries—except children check out toys and games instead.

Located in the heart of a community, toy libraries bring families together to share collective goods. One estimate found that 4,500 toy libraries are scattered across 31 countries. In New Zealand, for example, 217 toy libraries serve over 23,000 children.

By providing toys and games, the libraries help parents save money. Based on local community values, toy librarians can also screen out toys that lack educational value or reinforce negative consumer values, like Barbie dolls and toy cars and guns.

The libraries also resolve an important dilemma facing parents: how do you fulfill children’s basic right to play with varied and stimulating goods and still avoid excessive consumption and waste? In addition, the toy library helps parents decrease the influence of the marketplace on their children. Parents often find that shopping and buying for children at toy stores is fraught with stress and conflict. Borrowing at the toy library offers children an abundance of goods from which to choose and a wealth of challenging toys.

Sharing collective goods also teaches children many valuable lessons, such as generosity, empathy, and environmental values. These positive sharing experiences appear to be viral, and parents expand into other such experiences such as donating toys, engaging in children’s clothing swaps, giving second-hand goods as gifts, joining book cooperatives, sharing cars, and joining time banks.

—Lucie Ozanne, Marketing Professor, University of Canterbury, New Zealand
—Julie Ozanne, Marketing Professor, Virginia Tech University

Source: See endnote 13.
dren under the age of three. Because of the Internet and satellite broadcasting, however, marketers are increasingly able to target children in any country, making adequate regulation a complex but even more essential task. Changes in regulatory policy take time and are often met with strong and well-funded resistance from commercial stakeholders. As a result, the task of “saving” play in a commercialized world rests on the efforts of nongovernmental organizations (NGOs) and professional groups that are working to influence policy, set limits on marketers’ access to children, and help parents and schools encourage creative play. Public institutions, such as libraries and museums, can offer alternative creative educational opportunities. (See Box 8.)

Organized efforts to stop the commercial exploitation of children are in their infancy, but they continue to grow. Pressure from NGOs has led the U.K. government to regulate the marketing of certain foods on television. In Brazil, thanks to efforts by the national advocacy group Criança e Consumo, the state television station in São Paulo no longer markets to children, and a bill prohibiting marketing to children is being considered in the national legislature.

In the United States, which regulates marketing to children less than most industrial democracies, pressure from groups such as the Campaign for a Commercial-Free Childhood has forced companies like Disney and McDonald’s to alter some of their marketing practices. The Federal Communications Commission recently launched a review of its rules for children’s television with the goal of meeting the new demands of digital technology. And professional organizations such as the American Academy of Pediatrics and American Psychological Association have issued recommendations that include no screen time for children under the age of two, limited screen time for older children, and restricted advertising and marketing to children under eight.

Ad hoc groups of health care professionals and educators have come together to issue strong statements about the importance of play and the need to limit commercial access to children. In the United Kingdom, diverse luminaries such as the Archbishop of Canterbury, children’s book author Phillip Pullman, and members of Parliament have joined with educators and health care professionals to deplore the state of childhood in the country, urging limited commercial access to children and advocating for increased opportunities for creative play.

Efforts to limit children’s exposure to commercialism and promote creative play are aided by a growing recognition of the need for children to connect with nature. Studies indicate that children play more creatively in green space. As a result of grassroots efforts from NGOs like the Children & Nature Network, the U.S. Congress is currently considering the No Child Left Inside Act, which provides funding for teachers to use schoolyards and local green spaces for lessons. In the Netherlands, conservation and environmental activists—in cooperation with the Minister of Agriculture, Nature and Food Safety—are urging Parliament to support major efforts to help children connect with nature. In Germany, Waldkindergärten—preschools where young children spend their school time out in nature—are flourishing.

Previous generations took it for granted that children used their leisure time for play. But that is no longer true. Play is an endangered species, and there needs to be a conscious, concerted effort to save make-believe for future generations. The consequence of millions of children growing up deprived of play is a world bereft of joy, creativity, critical thinking, individuality, and meaning—so much of what makes it worthwhile to be human. We need to let children play.
Periodic reinvention is important for all institutions, but particularly for natural history museums, which often seem to be more concerned with the past than the future—more “cabinets of curiosities” showcasing life’s historical forms than institutions grappling with the most challenging problems of today and tomorrow.

Helping people of all ages learn about nature and the science of life is an obvious role for natural history museums. Public engagement should not be their secondary mission, but one that is primary. Considering this and financial realities—museums have expenses and depend on paying visitors—exhibits have to be scientifically accurate as well as engaging for a wide array of people.

One institution that has tackled this issue is the California Academy of Sciences in San Francisco. No function has been untouched. The challenge was to be green and sustainable—intellectually, financially, educationally, and operationally—while remaining faithful to the Academy’s core mission: to be the most engaging natural history museum in the world, to inspire visitors of all ages to be curious about the natural world, expand their knowledge of it, and feel a responsibility to preserve it; to encourage young visitors to pursue careers in science; to improve science education at all levels; to carry out the highest-quality research on questions of major importance; and to be successful financially.

The Academy started its reinvention with a new building completed in 2008—a necessity after an earthquake damaged the old one in 1989. This building earned the highest possible rating in the Leadership in Energy and Environmental Design rating system: Platinum. Actually, by exploiting a variety of green building technologies and strategies, including recycled building materials, natural ventilation, solar energy generation, and a living roof, it exceeded the threshold for Platinum certification. Today the new Academy uses about 30–35 percent less energy than typical for a building of its type, generates 213,000 kilowatt-hours of solar electricity, and prevents 3.6 million gallons of run-off with its living roof, which is also a popular exhibit for visitors.

Along with a new physical structure, the Academy has made some innovative new program additions in order to engage broader audiences. A few highlights include:

- Free admission one day each month, and always free for visiting classes.
- A glass-walled “project laboratory” where visitors can view scientists’ work and learn about the details on connected video screens.
- A robust Web site providing lesson planning material, scientists’ blogs, and a live video feed to Farallon Islands, a nature reserve otherwise closed to visitors.
- A Teacher Institute on Science and Sustainability that engages elementary school teachers each year.
- A program called NightLife to attract the age group least represented as visitors—21- to 40-year-olds. Every Thursday evening, visitors 21 and older can enjoy the exhibits, scientific presentations, drinks, and lively DJs—all of which make the Academy what has been rated the “steamiest” date spot in San Francisco.

Whether for NightLife or for class visits, the Academy is challenging more people to consider two essential questions of our time: How did life arise and evolve, and how can it be sustained?

Gregory C. Farrington
Executive Director,
California Academy of Sciences
Source: See endnote 16.