

KEY ISSUE 3

Why Is Access to Folk and Popular Culture Unequal?

- Electronic Diffusion of Popular Culture
- Challenges in Accessing Electronic Media

Learning Outcome 4.3.1

Describe the origin, diffusion, and distribution of TV around the world.

Popular culture diffuses rapidly around the world, primarily through electronic media. The latest fashions in material culture and leisure activities can be viewed by anyone in the world who has access to one or more forms of electronic media. Electronic media increase access to popular culture for people who embrace folk culture and at the same time increase access to folk culture for people who are part of the world's popular culture scene.

The principal obstacle to popular culture is lack of access to electronic media. Access is limited primarily by lack of income. In some developing countries access is also limited by lack of electricity, cell phone service, and other electronic media.

Electronic Diffusion of Popular Culture

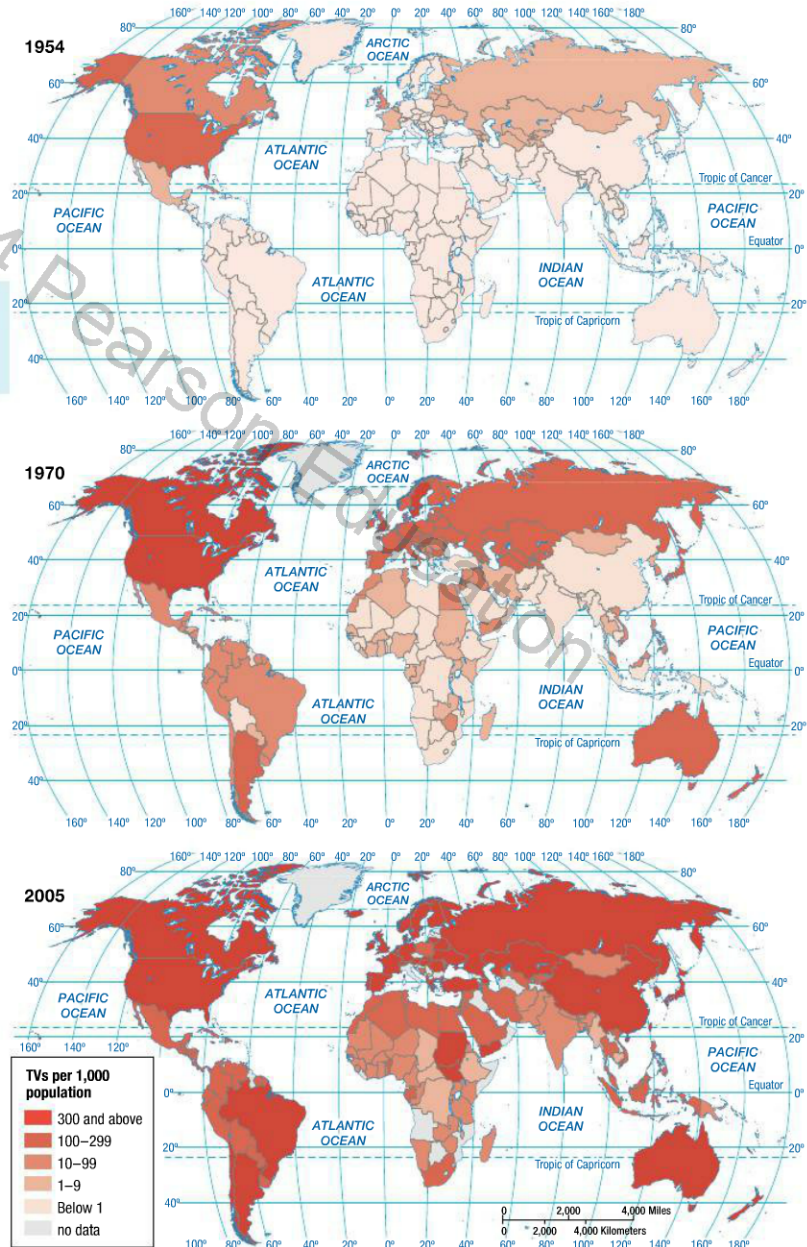
The world's most important electronic media format by far is TV. TV supplanted other formats, notably radio and telegraph, during the twentieth century. Into the twenty-first century, other formats have become popular, but they have not yet supplanted TV worldwide.

Watching TV remains especially important for popular culture for two reasons:

- Watching TV is the most popular leisure activity in the world. The average

human watched 3.1 hours of TV per day in 2009, and the average American watched 4.6 hours.

- TV has been the most important mechanism by which popular culture, such as professional sports, rapidly diffuses across Earth.



▲ **FIGURE 4-28 DIFFUSION OF TV** Televisions per 1,000 inhabitants in (top) 1954, (middle) 1970, and (bottom) 2005. Television has diffused from North America and Europe to other regions of the world. The United States and Canada had far more TV sets per capita than any other country as recently as the 1970s, but several European countries now have higher rates of ownership.



▲ **FIGURE 4-29 TV HEARTH** One of the first experimental TV broadcasts was by German engineers at the 1936 Olympics in Berlin.

DIFFUSION OF TV: MID-TWENTIETH CENTURY

Through the second half of the twentieth century, television diffused from the United States to Europe and other developed countries and then to developing countries (Figure 4-28):

- **Early twentieth century: Multiple hearths.** Television technology was developed simultaneously in the United Kingdom, France, Germany, Japan, and the Soviet Union, as well as in the United States, though in the early years of broadcasting the United States held a near monopoly (Figure 4-29).
- **Mid-twentieth century: United States dominates.** In 1954, the first year that the United Nations published data on the subject, the United States had 86 percent of the world's 37 million TV sets.
- **Late twentieth century: Diffusion to Europe.** Rapid growth of ownership in Europe meant that the share of the world's sets in the United States declined to one-fourth. Still, in 1970, half of the countries in the world, including most of those in Africa and Asia, had little if any TV broadcasting.
- **Early twenty-first century: Near-universal access.** By 2005, ownership rates climbed sharply in many developing countries, diminishing international differences (Figure 4-30).

Despite diffusion of TV sets around the world, the United States remains the country where people are most likely to watch it. According to the U.S. Time Use Survey, the average American male spent around 7 hours on leisure and recreation in a typical weekend in 2010, and TV watching took up 51 percent of the time. Women spent around 6 hours on leisure in a typical weekend and watched TV for 49 percent of the time (Figure 4-31).

Although people around the world spend a lot of time watching TV, they don't all watch the same programs. Sports are the most popular programs in North America, entertainment programs such as reality shows in most of



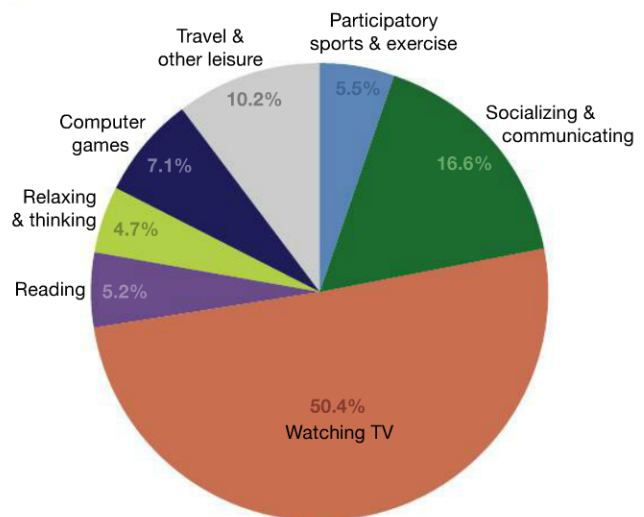
▲ **FIGURE 4-30 TV DIFFUSES WORLDWIDE** Uruguayan fans watch Uruguay play South Korea in 2010 World Cup.

Europe and China, fictional programs in South Asia, and news programs in Russia.

The technology by which TV is delivered to viewers has changed. Between 2006 and 2013, the share of viewers around the world receiving programs over the air declined from 44 percent to 33 percent, and the share using cable increased modestly, from 35 percent to 37 percent. On the other hand, the share receiving programs through a satellite dish increased from 20 percent to 26 percent, and the share receiving TV programs through the Internet increased from less than 1 percent to 5 percent.

Pause and Reflect 4.3.1

How much TV do you watch? Which types of programs do you watch? Do you watch on a traditional TV set, or do you watch on a computer, tablet, or smartphone?



▲ **FIGURE 4-31 HOW AMERICANS SPEND THEIR WEEKENDS** Watching TV is by far the most common leisure activity for Americans.

DIFFUSION OF THE INTERNET: LATE TWENTIETH CENTURY

Learning Outcome 4.3.2

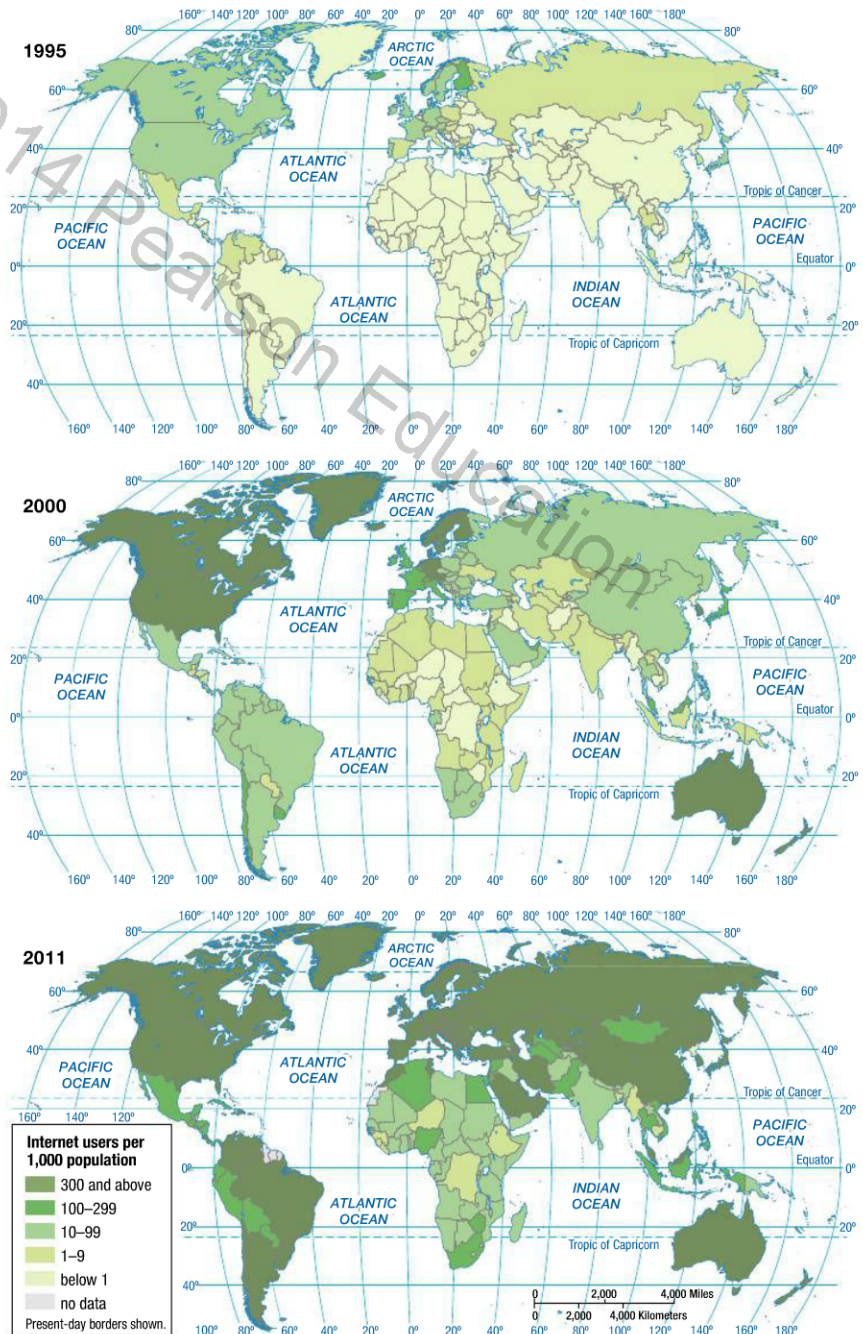
Compare the diffusion of the Internet and social media with the diffusion of TV.

The diffusion of Internet service follows the pattern established by television a generation earlier, but at a more rapid pace (Figure 4-32):

- In 1995, there were 40 million Internet users worldwide, including 25 million in the United States, and Internet service had not yet reached most countries.
- Between 1995 and 2000, Internet usage increased rapidly in the United States, from 9 percent to 44 percent of the population. But the worldwide increase was much greater, from 40 million Internet users in 1995 to 361 million in 2000. As Internet usage diffused rapidly, the U.S. percentage share declined rapidly in five years, from 62 to 31 percent.
- Between 2000 and 2011, Internet usage continued to increase rapidly in the United States, to 77 percent of the population. Again, the increase was more modest than in the rest of the world, and the share of the world's Internet users found in the United States continued to decline, to 10 percent in 2011.

Note that all six maps in Figures 4-28 and 4-32 use the same intervals. For example, the highest class in all maps is 300 or more per 1,000. What is different is the time interval period. The diffusion of television from the United States to the rest of

► **FIGURE 4-32 DIFFUSION OF THE INTERNET** Internet users per 1,000 inhabitants in (top) 1995, (middle) 2000, and (bottom) 2011. Compare to the diffusion of TV (Figure 4-28). Internet service is following a pattern in the twenty-first century similar to the pattern of diffusion of television in the twentieth century. The United States started out with a much higher rate of usage than elsewhere, until other countries caught up. The difference is that the diffusion of television took a half-century and the diffusion of the Internet only a decade.



the world took a half-century, whereas the diffusion of the Internet took only a decade. Given the history of television, the Internet is likely to diffuse further in the years ahead at a rapid rate (Figure 4-33).

DIFFUSION OF SOCIAL MEDIA: TWENTY-FIRST CENTURY

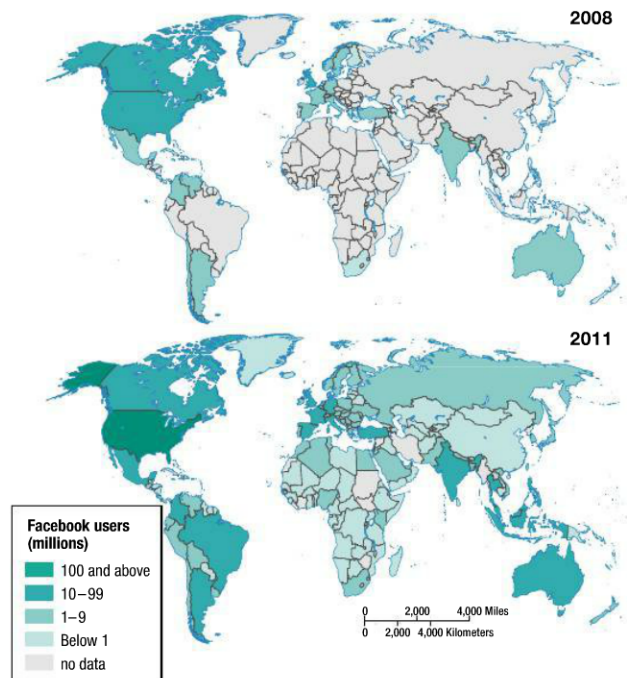
The familiar pattern has repeated in the twenty-first century. People based in the United States have dominated the



▲ **FIGURE 4-33 DIFFUSION OF THE INTERNET TO INDIA** Access to the Internet is available even in many rural areas of many LDCs.

use of social media during the early years. In the future, will U.S. dominance be reduced and perhaps disappear altogether, as occurred in the twentieth century with TV?

DIFFUSION OF FACEBOOK. Facebook, founded in 2004 by Harvard University students, has begun to diffuse rapidly. As with the first few years of TV and the Internet, once again the United States started out with far more Facebook users than any other country. In 2008, four years after Facebook's founding, the United States had one-third of all users worldwide. As Facebook has diffused to other countries, the share of users in the United States has declined, to one-fifth of the worldwide total in 2011 (Figure 4-34). In the years ahead, Facebook is likely to either



▲ **FIGURE 4-34 DIFFUSION OF FACEBOOK** Facebook users in (top) 2008 and (bottom) 2011

diffuse to other parts of the world or be overtaken by other forms of electronic social networking and be relegated to a footnote in the continuous repeating pattern of diffusing electronic communications.

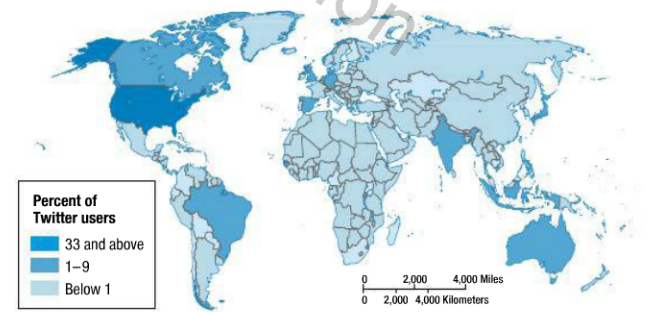
DIFFUSION OF TWITTER. The United States was the source of one-third of all Twitter messages in 2011. Another one-third originated in six other countries—India, Japan, Germany, the United Kingdom, Brazil, and Canada (Figure 4-35). In the case of Twitter, the second leading Twitter country is one of the world's poorest, India. This may be a preview of future trends, in which electronic communications advances diffuse rapidly to developing countries, not just to other developed countries.

Americans or U.S.-based sources dominate the most popular Twitter postings. Nineteen of the 20 Twitter posters with the largest followings in 2010 were American, led by Ashton Kutcher, Britney Spears, Ellen DeGeneres, Barack Obama, and Lady Gaga. The only exception in the top 20 in 2010 was the UK band Coldplay.

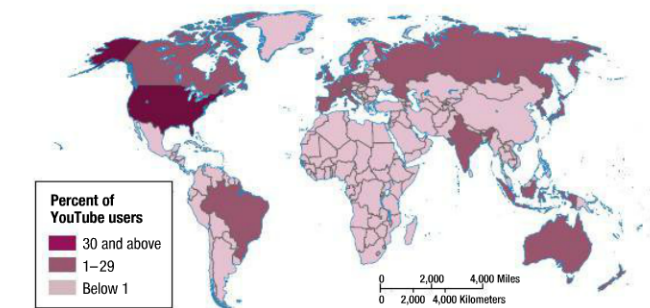
DIFFUSION OF YOUTUBE. Again, the United States accounted for 30 percent of worldwide users in the early years of YouTube. Seventeen other countries, mostly in Europe, accounted for the remainder in 2011. Most countries of the world did not have YouTube users as of 2011 (Figure 4-36).

Pause and Reflect 4.3.2

Which social media do you prefer to use? Why?



▲ **FIGURE 4-35 DISTRIBUTION OF TWITTER USERS** More than one-third of the world's Twitter users were in the United States in 2011.



▲ **FIGURE 4-36 DISTRIBUTION OF YOUTUBE USERS** Nearly one-third of the world's YouTube users were in the United States in 2011.

Challenges in Accessing Electronic Media

Learning Outcome 4.3.3

Understand external and internal threats to folk culture posed by electronic media.

People in developing countries who embrace folk culture are challenged by the diffusion of popular culture through electronic media. On the one hand, they welcome the opportunity to view the Olympics or the latest fashions. On the other hand, increased availability of electronic media poses threats to the future of folk culture.

The threat to folk culture can be either external or internal. The external threat is that most of the content diffused through electronic media originates in a handful of developed countries. The internal threat is that the latest forms of social media enable people in developing countries to originate the content themselves—as long as they can afford the cost of access.

EXTERNAL THREAT: DEVELOPED COUNTRIES CONTROL THE MEDIA

Three developed countries dominate the television industry in developing countries—Japan, the United Kingdom, and the United States. These three countries are also the major exporters of programs.

ENTERTAINMENT, OR CULTURAL IMPERIALISM? Leaders of many developing countries view control of TV by a handful of developed countries—especially the United States—as a new method of economic and cultural imperialism. American TV programs present characteristically American beliefs and social forms, such as upward social mobility, relative freedom for women, glorification of youth, and stylized violence. These attractive themes may conflict with and drive out traditional folk culture.

To avoid offending traditional folk culture, many satellite and cable providers in developing countries block offending networks such as MTV and censor unacceptable programs. The entertainment programs that are substituted emphasize family values and avoid controversial or edgy cultural, economic, and political content.

NEWS—FAIR OR BIASED? Developing countries fear the threat of the news-gathering capability of the media even more than their entertainment function. The news media in most developing countries are dominated by the government, which typically runs the radio and TV service as well as the domestic news-gathering agency.

Sufficient funds are not available to establish an independent news service in developing countries. The process of gathering news worldwide is expensive, and most broadcasters and newspapers are unable to afford their own correspondents. Instead, they buy the right to use the dispatches of one or more of the main news organizations.

The diffusion of information to newspapers around the world is dominated by the Associated Press (AP) and Reuters, which are owned by American and British companies, respectively. The AP and Reuters also supply most of the world's television news video. The world's 25 largest media companies are all based in developed countries: including 15 in the United States, 4 in the United Kingdom (including the parent company of the publisher of this book), and 2 each in France, Germany, and Japan.

NEWS COVERAGE AND PRESS FREEDOM. Many African and Asian government officials criticize the Western concept of freedom of the press. They argue that the American news organizations reflect American values and do not provide a balanced, accurate view of other countries. U.S. news-gathering organizations are more interested in covering earthquakes, hurricanes, and other sensational disasters than more meaningful but less visual and dramatic domestic stories, such as birth-control programs, health-care innovations, and construction of new roads.

Pause and Reflect 4.3.3

What would be a specific example of a distinctively American perspective on a U.S. TV show?

INTERNAL THREAT: SOCIAL MEDIA

George Orwell's novel *1984*, published in 1949, anticipated that TV—then in its infancy—would play a major role in the ability of undemocratic governments to control people's daily lives. In fact, many governments viewed TV as an important tool for fostering cultural integration. TV could extol the exploits of the leaders or the accomplishments of the political system. People turned on their TV sets and watched what the government wanted them to see.

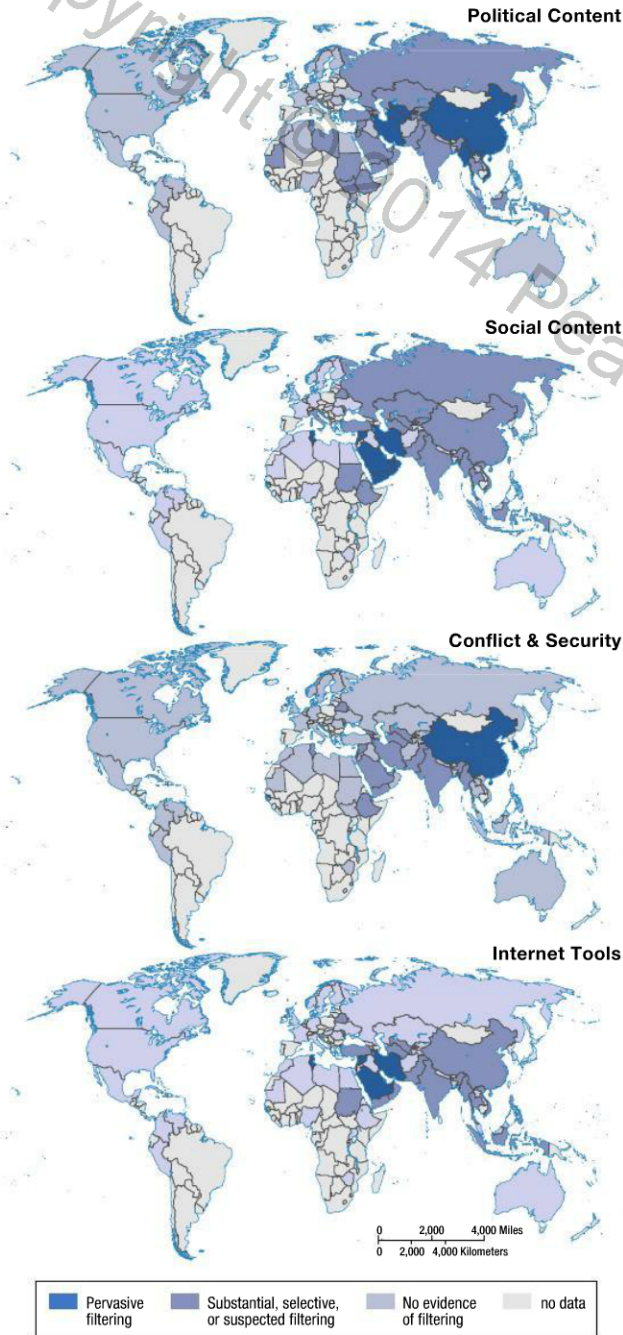
Blocking foreign programming was easy for governments when TV service consisted of only a few over-the-air channels. Because over-the-air TV signals weakened with distance and were strong only up to roughly 100 kilometers (60 miles), few people could receive TV from other countries, so most were totally dependent on what their own government preferred to broadcast.

LIMITING ACCESS TO TV. Changing technology has made TV a force for political change rather than stability. Satellite dishes and the Internet enable people to choose from a wide variety of programs produced in other countries, not just the local government-controlled station. The delivery of programs in the future is likely to be closely integrated with other Internet services. This will facilitate people in different countries watching the same program.

Governments have had little success in shutting down satellite technology. Despite the threat of heavy fines, several hundred thousand Chinese still own satellite dishes. Consumers can outwit the government because the small size of satellite dishes makes them easy to smuggle into the country and erect out of sight, perhaps behind a brick wall or under a canvas tarpaulin. A dish may be expensive by local standards—twice the annual salary of a typical

Chinese worker, for example—but several neighbors can share the cost and hook up all of their TV sets to it.

LIMITING ACCESS TO THE INTERNET. As with television, governments try to limit Internet content. According to OpenNet Initiative, countries limit access to four types of Internet content (Figure 4-37):



▲ FIGURE 4-37 LIMITING FREEDOM ON THE INTERNET Countries limit access to four types of Internet content: (top) political content, (second) social content, (third) security content, (bottom) Internet tools.

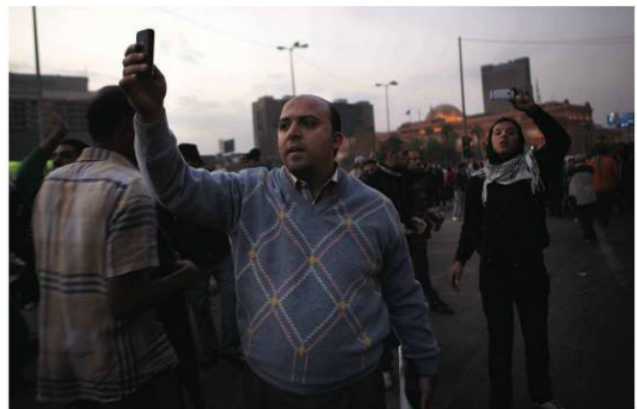
1. Political content that expresses views in opposition to those of the current government or that is related to human rights, freedom of expression, minority rights, and religious movements.
2. Social content related to sexuality, gambling, and illegal drugs and alcohol, as well as other topics that may be socially sensitive or perceived as offensive.
3. Security content related to armed conflicts, border disputes, separatist movements, and militant groups.
4. Internet tools, such as e-mail, Internet hosting, and searching.

ELUDING CONTROL: NEW TECHNOLOGIES AND SOCIAL MEDIA. Social media have started to play a significant role in breaking the monopoly of government control over diffusion of information. As difficult as it is for governments to block satellite and Internet communications, it is even harder to block individual social media. Popular uprisings against undemocratic governments in Egypt, Libya, and other countries in Southwest Asia and North Africa in 2011 relied on individuals sending information through cell phones, Twitter, blogs, and other social media (Figure 4-38).

CHECK-IN: KEY ISSUE 3

Why Is Access to Folk and Popular Culture Unequal?

- ✓ Popular culture diffuses primarily through electronic media, especially TV, as well as increasingly through other formats.
- ✓ Electronic media can pose a combination of external and internal threats to developing countries.



▲ FIGURE 4-38 PROTESTORS SHARING INFORMATION DURING ARAB SPRING Two Egyptian protesters took photographs with their mobile phones when Egyptian riot police fired tear gas during an Arab Spring protest in 2011.

KEY ISSUE 4

Why Do Folk and Popular Culture Face Sustainability Challenges?

- Sustainability Challenges for Folk Culture
- Sustainability Challenges for Popular Culture

Learning Outcome 4.4.1

Summarize challenges for folk culture from diffusion of popular culture.

Elements of folk and popular culture face challenges in maintaining identities that are sustainable into the future. For folk culture, the challenges are to maintain unique local landscapes in an age of globalization. For popular culture, the challenges derive from the sustainability of practices designed to promote uniform landscapes.

Many fear the loss of folk culture, especially because rising incomes can fuel demand for the possessions typical of popular culture. When people turn from folk to popular culture, they may also turn away from the society's traditional values. And the diffusion of popular culture from developed countries can lead to dominance of Western perspectives.

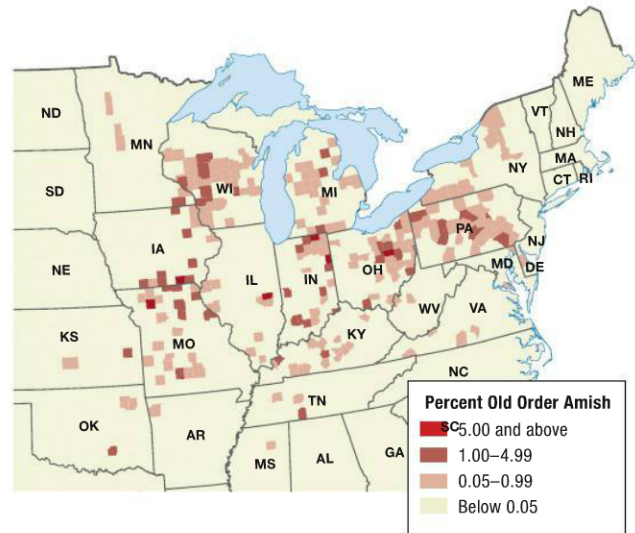
Sustainability Challenges for Folk Culture

For folk culture, increased connection with popular culture can make it difficult to maintain centuries-old practices. The Amish in the United States and marriage customs in India are two examples.

THE AMISH: PRESERVING CULTURAL IDENTITY

Although the Amish number only about one-quarter million, their folk culture remains visible on the landscape in at least 19 U.S. states (Figure 4-39). Shunning mechanical and electrical power, the Amish still travel by horse and buggy and continue to use hand tools for farming. The Amish have distinctive clothing, farming, religious practices, and other customs.

The distribution of Amish folk culture across a major portion of the U.S. landscape is explained by examining



▲ **FIGURE 4-39 DISTRIBUTION OF AMISH** Amish settlements are distributed throughout the northeastern United States. Amish farmers minimize the use of mechanical devices.

the diffusion of their culture through migration. In the 1600s, a Swiss Mennonite bishop named Jakob Ammann gathered a group of followers who became known as the Amish. The Amish originated in Bern, Switzerland; Alsace in northeastern France; and the Palatinate region of southwestern Germany. They migrated to other portions of Northwestern Europe in the 1700s, primarily for religious freedom. In Europe, the Amish did not develop distinctive language, clothing, or farming practices, and they gradually merged with various Mennonite church groups.

Several hundred Amish families migrated to North America in two waves. The first group, primarily from Bern and the Palatinate, settled in Pennsylvania in the early 1700s, enticed by William Penn's offer of low-priced land. Because of lower land prices, the second group, from Alsace, settled in Ohio, Illinois, and Iowa in the United States and Ontario, Canada, in the early 1800s. From these core areas, groups of Amish migrated to other locations where inexpensive land was available.

Living in rural and frontier settlements relatively isolated from other groups, Amish communities retained their traditional customs, even as other European immigrants to the United States adopted new ones. We can observe Amish customs on the landscape in such diverse areas as southeastern Pennsylvania, northeastern Ohio, and east-central Iowa. These communities are relatively isolated from each other but share cultural traditions distinct from those of other Americans.

Amish folk culture continues to diffuse slowly through interregional migration within the United States. In recent years, a number of Amish families have sold their farms in Lancaster County, Pennsylvania—the oldest and at one time largest Amish community in the United States—and migrated to Christian and Todd counties in southwestern



▲ **FIGURE 4-40 AMISH AND TOURISTS** An Amish man demonstrates a cow milking machine to tourists in Shipshewana, Indiana.

Kentucky. According to Amish tradition, every son is given a farm when he is an adult, but land suitable for farming is expensive and hard to find in Lancaster County because of its proximity to growing metropolitan areas. With the average price of farmland in southwestern Kentucky less than one-fifth that in Lancaster County, an Amish family can sell its farm in Pennsylvania and acquire enough land in Kentucky to provide adequate farmland for all the sons. Amish families are also migrating from Lancaster County to escape the influx of tourists who come from the nearby metropolitan areas to gawk at the distinctive folk culture (Figure 4-40).

Pause and Reflect 4.4.1

In what ways might Amish people need to interact with popular culture?

MARRIAGE IN INDIA: CHALLENGING CULTURAL VALUES

Rapid changes in long-established cultural values can lead to instability, and even violence, in a society. This threatens not just the institutions of folk culture but the sustainability of the society as a whole.

The global diffusion of popular culture has challenged the subservience of women to men that is embedded in some folk customs. Women may have been traditionally relegated to performing household chores, such as cooking and cleaning, and to bearing and raising large numbers of children. Those women who worked outside the home were likely to be obtaining food for the family, either through agricultural work or by trading handicrafts.

At the same time, contact with popular culture has also had negative impacts for women in developing countries. Prostitution has increased in some developing countries to serve men from developed countries traveling on “sex tours.” These tours, primarily from Japan and Northern Europe (especially Norway,

Germany, and the Netherlands), include airfare, hotels, and the use of a predetermined number of women. Leading destinations include the Philippines, Thailand, and South Korea. International prostitution is encouraged in these countries as a major source of foreign currency. Through this form of global interaction, popular culture may regard women as essentially equal at home but as objects that money can buy in foreign folk societies.

Global diffusion of popular social customs has had an unintended negative impact for women in India: an increase in demand for dowries. Traditionally, a dowry was a “gift” from one family to another, as a sign of respect. In the past, the local custom in much of India was for the groom to provide a small dowry to the bride’s family. In the twentieth century, the custom reversed, and the family of a bride was expected to provide a substantial dowry to the husband’s family (Figure 4-41).

The government of India enacted anti-dowry laws in 1961, but the ban is widely ignored. In fact, dowries have become much larger in modern India and an important source of income for the groom’s family. A dowry can take the form of either cash or expensive consumer goods, such as cars, electronics, and household appliances.

The government has tried to ban dowries because of the adverse impact on women. If the bride’s family is unable to pay a promised dowry or installments, the groom’s family may cast the bride out on the street, and her family may refuse to take her back. Husbands and in-laws angry over the small size of dowry payments killed 8,391 women in India in 2010, and disputes over dowries led to 90,000 cases of torture and cruelty toward women by men.

To raise awareness of dowry abuses, Shaadi.com, an Indian matrimonial web site with 2 million members, created an online game called Angry Brides. Each groom has a price tag, starting at 1.5 million rupees (\$29,165). Every time the player hits a groom, his value decreases, and money is added to the player’s Anti-Dowry Fund, which is shown on her Facebook page.

▼ **FIGURE 4-41 INDIA DOWRY** The photograph is held by the sister of a woman murdered by her husband for not meeting his dowry demands.



Sustainability Challenges for Popular Culture

Learning Outcome 4.4.2

Summarize the two principal ways that popular culture can adversely affect the environment.

Popular culture can significantly modify or control the environment. It may be imposed on the environment rather than spring forth from it, as with many folk customs. For many popular customs the environment is something to be modified to enhance participation in a leisure activity or to promote the sale of a product. Even if the resulting built environment looks “natural,” it is actually the deliberate creation of people in pursuit of popular social customs.

The diffusion of some popular customs can adversely impact environmental quality in two ways:

- Pollution of the landscape
- Depletion of scarce natural resources

LANDSCAPE POLLUTION

Popular culture can pollute the landscape by modifying it with little regard for local environmental conditions, such as climate and soil. To create a uniform landscape, hills may be flattened and valleys filled in. The same building and landscaping materials may be employed regardless of location. Features such as golf courses consume large quantities of land and water; nonnative grass species are planted, and fertilizers and pesticides are laid on the grass to ensure an appearance considered suitable for the game.

UNIFORM LANDSCAPES. The distribution of popular culture around the world tends to produce more uniform landscapes. The spatial expression of a popular custom in one location will be similar to another. In fact, promoters of popular culture want a uniform appearance to generate “product recognition” and greater consumption (Figure 4-42).

▼ FIGURE 4-42 UNIFORM LANDSCAPE Route 66 in Springfield, Illinois.



The diffusion of fast-food restaurants is a good example of such uniformity. Such restaurants are usually organized as franchises. A franchise is a company's agreement with businesspeople in a local area to market that company's product. The franchise agreement lets the local outlet use the company's name, symbols, trademarks, methods, and architectural styles. To both local residents and travelers, the buildings are immediately recognizable as part of a national or multinational company. A uniform sign is prominently displayed.

Much of the attraction of fast-food restaurants comes from the convenience of the product and the use of the building as a low-cost socializing location for teenagers or families with young children. At the same time, the success of fast-food restaurants depends on large-scale mobility: People who travel or move to another city immediately recognize a familiar place. Newcomers to a particular place know what to expect in the restaurant because the establishment does not reflect strange and unfamiliar local customs that could be uncomfortable.

Fast-food restaurants were originally developed to attract people who arrived by car. The buildings generally were brightly colored, even gaudy, to attract motorists. Recently built fast-food restaurants are more subdued, with brick facades, pseudo-antique fixtures, and other stylistic details. To facilitate reuse of the structure in case the restaurant fails, company signs are often free-standing rather than integrated into the building design.

Uniformity in the appearance of the landscape is promoted by a wide variety of other popular structures in North America, such as gas stations, supermarkets, and motels. These structures are designed so that both local residents and visitors immediately recognize the purpose of the building, even if not the name of the company.

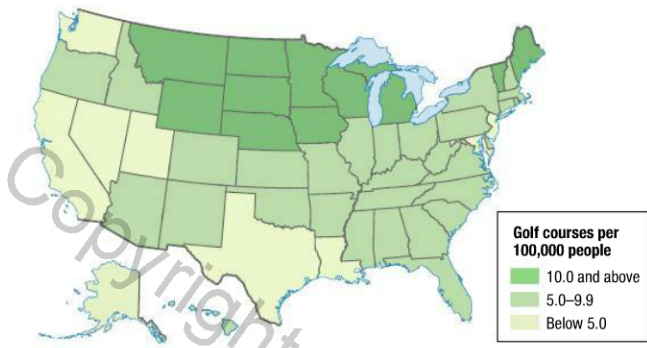
Physical expression of uniformity in popular culture has diffused from North America to other parts of the world. American motels and fast-food chains have opened in other countries. These establishments appeal to North American travelers, yet most customers are local residents who wish to sample American customs they have seen on television.

Pause and Reflect 4.4.2

How might fast-food restaurants reduce adverse impacts on the environment?

GOLF COURSES. Golf courses, because of their large size (80 hectares, or 200 acres), provide a prominent example of imposing popular culture on the environment. A surge in U.S. golf popularity spawned construction of several hundred courses during the late twentieth century. Geographer John Rooney attributed this to increased income and leisure time, especially among recently retired older people and younger people with flexible working hours. This trend slowed into the twenty-first century because of the severe recession.

The distribution of golf courses is not uniform across the United States. Although golf is perceived as a warm-weather sport, the number of golf courses per person is actually greatest in north-central states (Figure 4-43). People



▲ **FIGURE 4-43 GOLF COURSES** The highest concentration of golf courses is in the upper Midwest.

in these regions have a long tradition of playing golf, and social clubs with golf courses are important institutions in the fabric of the regions' popular customs.

In contrast, access to golf courses is more limited in the South, in California, and in the heavily urbanized Middle Atlantic region between New York City and Washington, D.C. Rapid population growth in the South and West and lack of land on which to build in the Middle Atlantic region have reduced the number of courses per capita in those regions. Selected southern and western areas, such as coastal South Carolina, southern Florida, and central Arizona, have high concentrations of golf courses as a result of the arrival of large numbers of golf-playing northerners, either as vacationers or as permanent residents.

Golf courses are designed partially in response to local physical conditions. Grass species are selected to thrive

in the local climate and still be suitable for the needs of greens, fairways, and roughs. Existing trees and native vegetation are retained if possible. (Few fairways in Michigan are lined by palms.) Yet, as with other popular customs, golf courses remake the environment—creating or flattening hills, cutting grass or letting it grow tall, carting in or digging up sand for traps, and draining or expanding bodies of water to create hazards. Ironically, golf originated as part of folk culture, as you can read in the following Sustainability and Inequality in Our Global Village feature.

ENVIRONMENTAL CAPACITY. The environment can accept and assimilate some level of waste from human activities. But popular culture generates a high volume of waste—solids, liquids, and gases—that must be absorbed into the environment. Although waste is discharged in all three forms, the most visible is solid waste—cans, bottles, old cars, paper, and plastics. These products are often discarded rather than recycled. With more people adopting popular customs worldwide, this problem grows.

Folk culture, like popular culture, can also cause environmental damage, especially when natural processes are ignored. A widespread belief exists that indigenous peoples of the Western Hemisphere practiced more “natural,” ecologically sensitive agriculture before the arrival of Columbus and other Europeans. Geographers increasingly question this idea. In reality, pre-Columbian folk customs included burning grasslands for planting and hunting, cutting extensive forests, and overhunting some species. Very high rates of soil erosion have been documented in Central America from the practices of folk cultures.

SUSTAINABILITY AND INEQUALITY IN OUR GLOBAL VILLAGE

Golf: Folk or Popular Culture?

The modern game of golf originated as a folk custom in Scotland in the fifteenth century or earlier and diffused to other countries during the nineteenth century. In this respect, the history of golf is not unlike that of soccer, described earlier in this chapter. Early Scottish golf courses were primarily laid out on sand dunes adjacent to bodies of water (Figure 4-44). Largely because of golf's origin as a local folk custom, golf courses in Scotland do not modify the environment to the same extent as those constructed in more recent years in the United States and other countries, where hills, sand, and grass are imported,



often with little regard for local environmental conditions. Modern golf also departs from its folk culture roots by being a relatively expensive sport to play in most places.



▲ **FIGURE 4-44 SCOTLAND AND U.S. GOLF COURSES** The Congressional Country Club golf course in Bethesda, Maryland (left), made substantial alterations to the landscape. Scotland's Royal Troon Golf Club was built into a seaside dune with little alteration of the landscape.

RESOURCE DEPLETION

Learning Outcome 4.4.3

Summarize major sources of waste and the extent to which each is recycled.

Increased demand for the products of popular culture can strain the capacity of the environment. Diffusion of some popular customs increases demand for animal products, ranging from rare wildlife to common domesticated animals, and for raw materials, such as minerals and other substances found beneath Earth's surface. The depletion of resources used to produce energy, especially petroleum, is discussed in Chapter 9.

DEMAND FOR ANIMAL PRODUCTS. Popular culture may demand a large supply of certain animals, resulting in depletion or even extinction of some species. For example, some animals are killed for their skins, which can be shaped into fashionable clothing and sold to people living thousands of kilometers from the animals' habitat. The skins of the mink, lynx, jaguar, kangaroo, and whale have been heavily consumed for various articles of clothing, to the point that the survival of these species is endangered. This unbalances ecological systems of which the animals are members. Folk culture may also encourage the use of animal skins, but the demand is usually smaller than for popular culture.

Increased meat consumption in popular culture has not caused extinction of cattle and poultry—we simply raise more. But animal consumption is an inefficient way for people to acquire calories—90 percent less efficient than if people simply ate grain directly. To produce 1 kilogram (2.2 pounds) of beef sold in the supermarket, nearly 10 kilograms (22 pounds) of grain are consumed by the animal. For every kilogram of chicken, nearly 3 kilograms (6.6 pounds) of grain are consumed by the fowl. This grain could be fed to people directly, bypassing the inefficient meat step. With a large percentage of the world's population undernourished, some question this inefficient use of grain to feed animals for eventual human consumption.

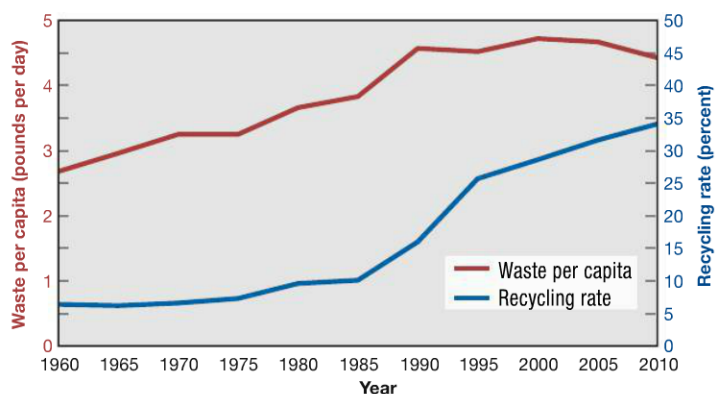
RECYCLING OF RESOURCES. The developed countries that produce endless supplies of consumer products for popular culture have created the technological capacity both to create large-scale environmental damage and to control it. However, a commitment of time and money must be made to control the damage.

Unwanted by-products are usually “thrown away,” perhaps in a “trash can.” Recycling is the separation, collection, processing, marketing, and reuse of the unwanted material. Recycling increased in the United States from 7 percent of all solid waste in 1970 to 10 percent in 1980, 17 percent in 1990, and 34 percent in 2010 (Figure 4-45).

As a result of recycling, about 85 million of the 250 million tons of solid waste generated in the United States in 2010 did not have to go to landfills and incinerators, compared to 34 million of the 200 million tons generated in 1990. In other words, the amount of solid waste generated by Americans increased by 50 million tons between 1990 and 2010, and the amount recycled increased by 51 million tons, so about the same amount went into landfills or incinerators over the period. The percentage of materials recovered by recycling varies widely by product: 63 percent of paper products and 58 percent of yard waste are recycled, compared to only 8 percent of plastic and 3 percent of food scraps (Figure 4-46).

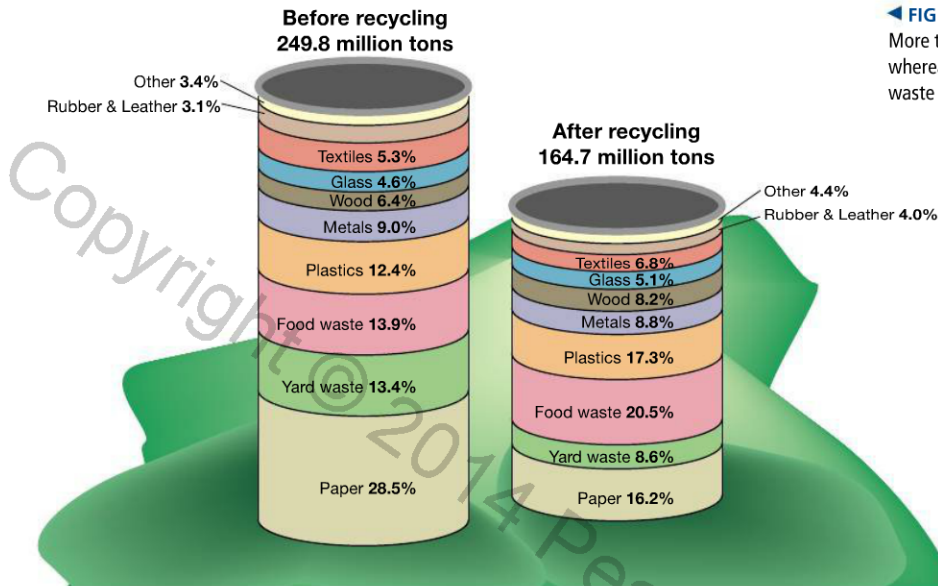
RECYCLING COLLECTION. Recycling involves two main series of activities:

1. **Pick-up and processing.** Materials that would otherwise be “thrown away” are collected and sorted, in four principal ways:
 - **Curbside programs.** Recyclables can often be placed at the curb in a container separate from the nonrecyclable trash at a specified time each week, either at the same or different time as the other trash. The trash collector usually supplies homes with specially marked containers for the recyclable items.
 - **Drop-off centers.** Drop-off centers are sites, typically with several large containers placed at a central location, for individuals to leave recyclable materials. A separate container is designated for each type of recyclable material, and the containers are periodically emptied by a processor or recycler but are otherwise left unattended.
 - **Buy-back centers.** Commercial operations sometimes pay consumers for recyclable materials, especially aluminum cans, but also sometimes plastic containers and glass bottles. These materials are usually not processed at the buy-back center.
 - **Deposit programs.** Glass and aluminum containers can sometimes be returned to retailers. The price a



▲ **FIGURE 4-45 RECYCLING IN THE UNITED STATES**

Recycling has increased substantially in the United States. As a result, the amount of waste generated per person has not changed much.



◀ FIGURE 4-46 SOURCES OF SOLID WASTE

More than one-half of paper and yard waste is recycled, whereas only a small percentage of plastic and food waste is recycled.

consumer pays for a beverage may include a deposit fee of 5¢ or 10¢ that the retailer refunds when the container is returned.

Regardless of the collection method, recyclables are sent to a materials recovery facility to be sorted and prepared as marketable commodities for manufacturing. Recyclables are bought and sold just like any other commodity; typical prices in recent years have been 30¢ per pound for plastic, \$30 per ton for clear glass, and \$90 per ton for corrugated paper. Prices for the materials change and fluctuate with the market.

Pause and Reflect 4.4.3

Which, if any, recycling systems operate in your community?

2. **Manufacturing.** Materials are manufactured into new products for which a market exists. Important inputs into manufacturing include recycled paper, plastic, glass, and aluminum:

- **Paper.** Most types of paper can be recycled. Newspapers have been recycled profitably for decades, and recycling of other paper, especially computer paper, is growing. Rapid increases in virgin paper pulp prices have stimulated construction of more plants capable of using waste paper. The key to recycling is collecting large quantities of clean, well-sorted, uncontaminated, and dry paper.
- **Plastic.** Different plastic types must not be mixed, as even a small amount of the wrong type of plastic can ruin the melt. Because it is impossible to tell one type from another by sight or touch, the plastic industry has developed a system of numbers marked inside triangles on the bottom of containers. Types 1 and 2 are commonly recycled, and the others generally are not.

- **Glass.** Glass can be used repeatedly with no loss in quality and is 100 percent recyclable. The process of creating new glass from old is extremely efficient, producing virtually no waste or unwanted by-products. Though unbroken clear glass is valuable, mixed-color glass is nearly worthless, and broken glass is hard to sort.
- **Aluminum.** The principal source of recycled aluminum is beverage containers. Aluminum cans began to replace glass bottles for beer during the 1950s and for soft drinks during the 1960s. Aluminum scrap is readily accepted for recycling, although other metals are rarely accepted.

Four major manufacturing sectors accounted for more than half of the recycling activity—paper mills, steel mills, plastic converters, and iron and steel foundries. Common household items that contain recycled materials include newspapers and paper towels; aluminum, plastic, and glass soft-drink containers; steel cans; and plastic laundry detergent bottles. Recycled materials are also used in such industrial applications as recovered glass in roadway asphalt (“glassphalt”) and recovered plastic in carpet, park benches, and pedestrian bridges.

CHECK-IN: KEY ISSUE 4

Why Do Folk and Popular Culture Face Sustainability Challenges?

- ✓ Folk culture faces loss of traditional values in the face of rapid diffusion of popular culture.
- ✓ Popular culture can cause two environmental concerns—pollution of the landscape and depletion of scarce resources.