The Influence of
American Culture on Software Design:
Microsoft Outlook as a Case Study

by

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Introduction

The personal computer has become one of the most ubiquitous appliances in today’s modern world. Since its invention in the 1970’s, the number of PC users has steadily increased, reaching critical mass during the 1990’s. Today, millions of people around the world interact with PCs in one way or another, either at work, in cafes, or at home. They create documents, surf the Web, send e-mail, and exchange information in a multitude of different ways.

These interactions with the PC are mediated by software applications. Software, in the form of operating systems, Web browsers, e-mail clients, media players, and others, are the gateway through which users can harness the processing power of their computers and the bandwidth of their network connections. Therefore, the functionalities that the software presents to the user in part determine the user’s experience.

As the software industry continues to grow, and as applications carry an increasing amount of information and communication, software applications have become more than mere 0’s and 1’s on the screen: they have become carriers of culture. This imposes on us a responsibility to gain a clear understanding of why software is structured the way it is, what priorities it establishes for users, and what cultural values, if any, are represented in its interfaces and functionalities. As computer use spreads around the world, reaching an increasing number of different cultures, understanding the underlying values and priorities embedded in software design and where those priorities and values come from will become increasingly prevalent.

It is my contention that software design is deeply influenced by American culture, which is a descendant of Western culture, and therefore reflects the values and priorities
identified with that culture. Since software languages, applications, and all associated
hardware were initially created in Western countries, particularly the United States, I
believe that American cultural values are reflected in the design and functionalities of
applications.

To demonstrate my hypothesis, I plan to consult sources from leading researchers
in the field of cultural studies in order to identify the most relevant cultural values of the
West. I will then proceed to investigate how those values are reflected in one of the most
widely distributed software applications in the world (as part of the Microsoft Office
suite), Microsoft Outlook (PCWorld.com 2002). With the help of literature on software
design, I will identify the intentions of computer programmers during the process of
software design and will explore how those intentions might subconsciously reflect
American culture. Finally, I will discuss some of the possible consequences of having
software as a carrier of Western culture, including the potential impact on other cultures.

A Definition of American Culture

In order to determine the influence of American culture on the design and
functionalities of Microsoft Outlook, we must first settle on an acceptable definition of
that culture. This task is more difficult than it may seem because there are so many
varying conceptions of “culture.” What does “culture” actually mean? Larry Naylor
(1998) tells us that one of the most difficult problems with the concept of culture is a
definitional one. There have been topical definitions, including everything that usually
fits into social structure or organization; historical definitions that reference a social
heritage (traditions) passed down through generations; behavioral definitions, wherein
culture is seen as shared and learned human behavior; *normative* definitions that equate culture with ideas, values, or rules for living; and *functional* definitions that see culture as the way humans solve problems in adapting to their environments. Other definitions portray culture as a *mental* construct—a complex of ideas or learned habits that inhibit impulses and distinguish us from other animals; structural definitions see culture as patterned and interrelated ideas, symbols, or behaviors; and symbolic definitions see culture as based on arbitrarily assigned meanings that are shared in a society. While this plethora of definitions has been developed by scholars in an attempt to understand culture, it makes it extremely difficult for the average person to understand what culture is and the important role it plays in everyday life. Culture simultaneously means different things to different people.

Despite all the different interpretations, there is agreement among scholars regarding some aspects of culture. Culture is more than just beliefs, behaviors, or the “things” humans produce. People are not born with their culture; they have to learn it. It is not a random collection of ideas, behaviors, or products that accumulate over time. Rather, it is adapted to the environment in which it exists and represents an integrated whole in which all parts are related in order to accomplish the goal, which at its most basic level is the survival of the group. Culture is unconscious and is learned as “truth.” When we behave in or react to a situation in a certain way, we do not see it as a result of our learned culture but simply as the natural way to behave or react in a given situation.

This is one of the reasons why Americans consistently and viscerally resist the idea that there is such a thing as “American culture.” They do not recognize their behavior, attitudes, or way of life as part of a distinct cultural pattern but rather as simply
“the way things are” or, rather, as “truth.” This is not uncommon, for it is the practice of ethnocentrism, which is frequently engaged in by all human beings. In fact, an American culture does exist, and its characteristics are easily identifiable. Many would take issue with this assertion, arguing that the United States is too big and diverse to have a unified culture. It is true that there is great diversity in America. However, there is also a dominant culture that sets the tone for the rest of the country: the middle-class, Anglo-Saxon, mainstream American culture. It is the cultural entity known as the American middle class that constantly redefines the meaning of the “American Dream” to which all citizens aspire. (Naylor, 1998). It is to this culture that we will refer to throughout this paper. While mainstream American culture, like all other cultures, is not static and continues to evolve, this paper will address some characteristics of contemporary mainstream American culture identified by scholars.

Since the United States is such a vast country, containing such diversity and regional differences, even within its mainstream culture, it would be impossible to discuss all the characteristics of American culture here. I will concentrate on some of the most important characteristics of mainstream American culture, as outlined by Hall, Gannon, (2001) and Naylor, that are clearly reflected and reinforced by the functionalities and interface of Microsoft Outlook:

**Individuality:** The cardinal value of mainstream American culture is individualism. Nearly every American believes in individual freedom, a belief directly related to other ideas such as free speech, self-reliance, equality, fairness, social success, privacy, the rule of law, and others. It permeates nearly every other aspect of American culture. Individualism goes hand in hand with equality, though equality in this sense
does not mean that Americans believe all individuals are equal in skills, intellect, and talent. Rather, they believe all individuals deserve equal opportunities to succeed. The belief in equality creates a strong egalitarian ethos among Americans.

**Relationships and communication:** Because of their egalitarian nature, Americans tend to be friendly and informal to an extreme, a trait that unnerves members of other cultures who interact with Americans (Hall 1990). However, because of the high geographical, social, and economic mobility within American society, relationships among Americans tend to be superficial. Americans tend to shy away from opening themselves up to others, except to longtime close friends and family. They also tend to be very direct in their communications while at the same time trying to avoid confrontation. Americans are low-context, as most Anglo-Saxon cultures are, which means they need a great deal of information explicitly stated in the communication. This complicates communication with high-context cultures, such as the Japanese, which do not need much information explicitly stated in the content of the messages (Hall, 1989). This low-context nature makes written communication very important to Americans, which can be observed in the constant flow of e-mails and memos in American offices.

**Competition and cooperation:** The individualistic nature of American culture fosters intense competition among its members with the ultimate goal of achieving success, which is usually associated with monetary reward and the associated symbols of improved social status. But this intense competition commonly takes place with a strong impulse towards cooperation. There is strong pressure from the culture to be a “team player,” to be “a good sport,” to get along with others, to fit in. Gannon (2001) uses the metaphor of football to describe this phenomenon. In football, a team sport, individuals
excel as in no other sport. Teams meet in huddles to plan specific plays to be executed by players with very specific skills and roles. The “huddle” is not a device used just in football; it can be seen all over the culture, especially in business, where meetings are constantly held to work out problems. While business from all cultures hold business meetings, it is the egalitarian nature of American “huddles,” with their emphasis on free-flowing discussion and problem-solving based on consensus that makes them uniquely American.

**Business:** Though there are many capitalist countries in the world, American capitalism is so dynamic that it puts business at the very center of society. Most Americans realize that business is central to the continued economic growth that sustains the ever-rising standard of living they enjoy. American culture places responsibilities on business that other cultures leave to the public sector, such as managing public utilities, mass communications, funding charities and the arts, and many others. Most of American society’s best talent is channeled towards business; this is in contrast to other societies, where it is channeled towards other institutions, such as government.

**Time management:** Like most Westerners, Americans are monochronic people. Hall (1989) defines monochronic time, or m-time, as emphasizing schedules, segmentation, and promptness. Polychronic time, or p-time, is characterized by several things happening at once, and stresses involvement of people and completion of transactions instead of adherence to preset schedules (though a younger generation of Americans seems comfortable with “multitasking, which could be construed as a form of polychronic behavior). Language gives us an idea of how Americans view time. They talk about “saving” time, “spending” time, or, the worst sin of all, “wasting” time.
Perhaps because of their short history as a nation, Americans tend to place a much higher premium on the present and the future and have little regard for history and the past.

**Work ethic:** According to the International Labor Organization, Americans work longer hours than any other industrialized nation in the world. In fact, they spend about 80 hours more on the job per year, roughly two weeks, than the Japanese (CNN, 2001). Conversely, Americans usually do not schedule much vacation time for themselves, particularly when compared with some of their industrialized counterparts. This work ethic is deeply ingrained in the American psyche, harking back to the times of the Puritan colonization in the 17th century. Ironically, this does not mean that Americans are more productive; the Belgians, for example, work significantly fewer hours a year, yet are more productive (Anderson, 2001). For Americans, there is also a tight correlation between what they do for a living and who they are. When two Americans meet for the first time, one of the very first pieces of information they seek from each other is what they do for a living.

**Practicality:** Americans are very pragmatic; they always want to “get to the point” and are interested in the “bottom line” of things (not necessarily in the monetary sense). This sense of practicality is partly due to the culture’s Western heritage, which is rooted on rationalism and logic. Things must always “make sense,” and they trust facts and figures above all else.

**Microsoft Corporation and American Culture**

Before diving into an analysis of how the functionalities and user interface of Microsoft Outlook reflect and reinforce American cultural values, it would be useful to
look at the institution and individuals responsible for the creation of this application. Outlook is part of the Microsoft Office suite of productivity applications, which is manufactured and distributed by Microsoft Corporation. The fact that a private corporation is responsible for the creation and distribution of the most widely used suite of proprietary software reflects the importance of business in American culture. Furthermore, Microsoft markets Office as a productivity tool primarily for business; the very name of the product, “Office,” reinforces the importance of work and business to the culture. Since we are usually unaware of the influence of culture in these decisions, perhaps we would not give any of this a second thought; but there are alternatives to this model. The most widely used productivity software could be produced through an open-source model, but it is not. It could be geared towards improving productivity in government or non-profit organizations, but it is not. It could be called “Home” or “Leisure,” but it is not. The origins and purpose of Office, and therefore Outlook, reflect and reinforce the culture from which it originated.

Microsoft’s founder and chairman, Bill Gates, could be considered the embodiment of American culture. He comes from a solid, middle class background: his father is a Seattle attorney and his late mother a schoolteacher. Gates went to both public and private school and attended Harvard for three years before dropping out to found Microsoft (Microsoft, 2002). His life embodies many key American cultural values: individualism, the importance of education, practicality, faith in technology, a forward-looking attitude, and an intense competitive spirit (which has run his company afoul of the government more than once). He believes economic prowess is the route to success.
Microsoft does not produce software in a vacuum. It is part of one of the most competitive industries in America, which is, with the exception of Microsoft and some others, heavily concentrated in Silicon Valley, California. Michael Lewis (2002) described Silicon Valley this way:

The United States obviously occupies a strange place in the world. It is the capital of innovation, of material prosperity, of a certain kind of energy, of certain kinds of freedom, and of transience. Silicon Valley is to the United States what the United States is to the world. It is one of those places, unlike the Metropolitan Museum of Art, but like Las Vegas, that is unimaginable anywhere but the United States. It is distinctly us [American].

Microsoft, while not located in Silicon Valley, is at the center of this very distinctly American industry and is therefore distinctly American as well. It only stands to reason that its products would reflect its American culture. The location of Microsoft’s corporate headquarters, Redmond, WA, reinforces Microsoft’s American middle-class culture. Redmond is a suburban city which prides itself for its “high quality of life with good schools, a healthy economy, a parks system that provides a variety of recreational opportunities, diverse offerings for shopping and dining, safe neighborhoods, and an emphasis on quality development and protection of the natural environment” (City of Redmond, 2002). Culturally speaking, Redmond could be considered the embodiment of the middle-class American Dream.

Microsoft’s corporate culture embodies many of the major American cultural traits outlined above. Paul Andrews (1999) gives us some insights into this corporate culture. It is a highly individualistic place, where employees succeed or fail on their talents, and employees are frequently encouraged to “own” the technologies on which they work. It is also a very egalitarian company. Microsoft employees, from Gates on
down, are routinely referred to within the company by their e-mail aliases; Gates is known as “billg” president Steve Ballmer is known as “steveb,” and so on. Perhaps the most striking egalitarian feature is how wide the company’s financial success is spread around its employees. Because of its use of company stock as compensation, Microsoft has created more millionaire employees than any company in history. Microsoft is also famous for its highly competitive corporate culture. During the summers, employees regularly retreat to Gateway, a compound built by Bill Gates in honor of his grandmother, to participate in Microgames, a summertime adventure competition where teams of players match wits and motor skills in a sort of extreme games for the highly intelligent.

**Microsoft Outlook: Functionalities, User Interface and American Culture**

Let us now examine how the functionalities and user interface of Microsoft Outlook reflect the American cultural values outlined above. To do this, I will revisit the cultural traits, point to specific user interface elements or functionalities, and describe the relationship between them.

*Individuality:* This cultural trait is reflected and reinforced throughout the application. Each Outlook user has a private account and profile, which can only be accessed by that user or the network administrator. The user also received an e-mail address that is unique throughout the Internet and in theory should be used only by that individual. All e-mail

Figure 1 – Private inbox reflects individuality
that is sent and received from this account, all journal notes created under it, and all
calendar items and tasks created from it are usually private and can only be seen by the
particular user. The contacts stored in this account are usually only relevant to the
particular user and are therefore also private with certain exceptions. This architectural
feature reflects the value American culture places on privacy, which is closely related to
individuality. As was mentioned earlier, because culture is unconscious, we usually do
not give these functionalities a second thought. But a culture that does not value
individuality and privacy as highly as American culture does might choose to structure
this type of application differently.

There are other user interface elements and functionalities that reinforce
individuality. For example, the user interface is highly customizable. The user can move
menu bars around to suit her preferences; she can customize how e-mail is viewed. She
can create new folders to store e-mail, depending on her individual needs; she can choose
to have the options on the task bars display only text, only icons, or both. The default
folder for documents, which not coincidentally is called ‘My Documents,’ can be
changed to another default folder. The very existence of a journal feature is analogous to
a very individual and private activity performed in real life.

Outlook users are expected to take advantage of the signature feature, which
inserts a signature with the sender’s information into all outgoing e-mail. This signature
can contain any contact information the user wants to make available and is highly
customizable. Even small interface details, such as the use of the term ‘My Shortcuts’ in
the shortcuts bar on the left, emphasize the individual and private character of the
application and the information contained in it.
**Relationships and communication:** Until artificial intelligence is mature enough, computer software will remain inherently low-context, and Microsoft Outlook is no exception. It constantly requires explicit input of information in order to perform tasks. For example, when sending a message, the application does not know how important it is, so the user must set the priority of the message as lowest, low, normal, high, or highest. The application does not know whether someone should be copied on the message, so the user has the option of a ‘Cc’ field. The software does not know the subject of the message, so the user must supply one. The very nature of Outlook reinforces low-context communication patterns.

While Outlook is marketed as a personal information manager (PIM), its chief function is that of an e-mail client. E-mail is a powerful tool for communication, which reflects and reinforces a cherished American cultural value: freedom of speech. The ease, speed, and access that e-mail provides encourage users to express their ideas more freely than ever before. Because e-mail is generally regarded as a more informal communication tool than others, it reflects the informal and egalitarian nature of American culture.

This egalitarian nature is reflected in other features. When one opens a new meeting request and begins to add attendees to meeting, all users are displayed in the same manner: either by full name or by e-mail address. No indication is given in the display of the attendee’s place in the organization’s hierarchy.

![Figure 2 – Meeting request reflects egalitarianism](image)
While the average employee will probably not invite the president of his company to a low-level meeting, Outlook’s interface display for members of that company does tend to de-emphasize the differences between the employee and the president. Some companies, like Microsoft, purposely use this feature to encourage the free flow of information and ideas through e-mail. At Microsoft, any employee who thinks he/she has a good idea can send Bill Gates (or “billg”) an e-mail, which will most likely be read by Gates himself.

We can see American relationship and communication patterns in many other features of Outlook. For example, the use of the word ‘contacts’ to identify the list of family, friends, acquaintances, and business associates compiled by the user reflects the low level of interpersonal involvement as well as the relative superficiality and transience of personal relationships present in American culture.

**Competition and cooperation:** While Outlook does not have features that directly address competition, it does have features that refer to it obliquely. The task list, for example, reflects the competitive nature of American culture, in which getting things done means getting ahead. On the other hand, many Outlook functionalities are designed to facilitate cooperation, creating something of a “virtual huddle.” The best example of this is the calendar feature, which allows users to schedule meetings and invite other users to them. The calendar further encourages cooperation by allowing users to see at what times of the day other users are available to meet and by allowing online meetings to be scheduled. Calendars can even be shared among users through the use of delegates.

**Business:** As was mentioned earlier, Outlook is part of the Office software suite, which is geared primarily at business users. Therefore, Outlook’s functionalities are
almost exclusively geared towards facilitating business transactions. The vocabulary used throughout the application’s user interface is a business vocabulary. Gatherings of users are referred to as “meetings;” goals to be accomplished are called “tasks;” the user’s e-mail arrives by default into his “inbox.” Furthermore, within its calendar tool, Outlook provides for a functionality to keep track of billable hours associated with scheduled meetings. Most of the event or meeting labels are business-related: “important,” “business,” “must attend,” “travel required,” etc. Only a few non-business labels, like “personal” or “birthday” are provided. The “notes” tool, which allows users to write small notes and save them, mimics the look of the popular post-it notes that are frequently used in offices (though they are also used in other settings as well, such as the home). Finally, the multiple options for reminders of tasks and meetings help keep users focused on completion of their business-oriented goals.

**Time management:** This is one of the American cultural traits most clearly reflected and reinforced by Outlook. Outlook’s top-level default view, a window called “Outlook Today,” displays how many e-mails the user has received, what appointments are in store for that day, and what tasks must be accomplished. It clearly reflects an American cultural preference for focusing on the present and the future instead of the past. The same can be said for the default e-mail and calendar views. E-mail is sorted by default starting with the newest e-mails at the top with older ones stacked down the window in chronological order. The calendar,
which can be viewed by day, week, and month, always defaults to the view closest to the present. There is even a fourth option, labeled “Today,” which takes the user directly the current day no matter which view he or she is using. While users can search back to previous days, weeks and months, the emphasis is definitely on the present and immediate future.

Another Outlook tool, the task list, reinforces the monochronic nature of American culture. Tasks are stacked one on top of the other, emphasizing the segmentation of work and a certain hierarchy of tasks. While users can sort tasks according to different criteria, the default sorting view is expected completion date, thus emphasizing their timely completion. The task list also provides for reminders, which facilitates adherence to schedules and deadlines.

The functionalities provided by the calendar tool are the embodiment of monochronic time. The calendar tool emphasizes time segmentation and strict adherence to schedules through the use of scheduled reminders. Meetings can be scheduled using 15-minute increments, segmenting time into units familiar to American culture. Meetings can be scheduled far in advance, and reminders can be scheduled to ensure compliance with the schedule. Reminders can be scheduled up to five minutes before the meeting, to ensure that the user does not leave for his meeting until absolutely necessary, which ensures no time is wasted.

Work ethic: As predominantly a business tool, Outlook promotes the work ethic for which Americans are so renowned. The calendar tool, for example, allows for work to be scheduled any day of the week, including weekends, at any hour of the day or night. The fact that such options are even available reflects an American cultural willingness to
work at any time in order to accomplish their work goals. It also reflects a consistent move by America towards a 24/7 society, where workers are expected to think about and be available for work even during their leisure time. The multitude of reminder functionalities scattered throughout the application for meetings, tasks, and e-mail actions help users stick to deadlines and therefore accomplish work-related goals in a timely manner. No holidays are scheduled by default in Outlook’s calendar function, and there are few non-work labeling options for events, meetings, tasks, contacts, and other objects, reinforcing the prominence of work in American culture.

**Practicality:** This cultural value, which is rooted in deeper Western values such as logic and reason, is reflected throughout the application. Since the application’s main function is to facilitate the flow of business-related information, it is seen as a very practical tool. The task list, with its goal-completion orientation, including the display of completed tasks by crossing them out, reinforces an American cultural impulse to “get to the point” or find “the bottom line.” Another example of practicality is the filters functionality, which allows the user to direct e-mail to whatever destination he deems most appropriate so that they may be processed in the most efficient way possible.

Having addressed how some mainstream American cultural values are reflected in Outlook, let us now look at how the software design process itself is imbued with some of these values as well.

**Design Process and Usability Testing**

The standard software design and usability testing processes are based on time-honored Western values and belief systems. The most widely used model for software
design is known as user-centered design. This is a process by which end users are involved early in the design process, which revolves entirely around their needs and expectations (Head, 1999). This process is strongly reminiscent of Western Humanism, which emphasizes the importance of the individual over institutions. Interestingly, just as individualism overcame the primacy of institutions such as the church and monarchies in Western culture, so did user-centered design overcome the “waterfall model,” in which the end user was little more than an afterthought. Cognitive psychology, a scientific discipline deeply rooted in the Western cultural and historical experience, is extensively deployed in the software usability testing process. Industrial and organizational psychologists “can play an important role at the very start of the user-interface design lifecycle by assisting in identifying users’ individual differences that are relevant to design” (Craiger, 1999). The reliance on an essentially humanistic approach and on cognitive psychology during the design and usability process reinforces the inherently Western/American cultural identity found throughout Microsoft Outlook.

Finally, we must consider the actual testing process and the population that tests these applications before they reach the market. There are three kinds of software testing and evaluations: heuristic evaluation, cognitive walkthrough, and user testing (Craiger, 2000). Heuristic testing involves the use of usability experts, who work from a list of standards, looking for violations in order to determine usability. Cognitive walkthrough uses designers, usability specialists, engineers, and the like as surrogates for end users for testing and rests on certain assumptions about the end user. User testing is the most comprehensive method because it involves actual end users using high-fidelity prototypes. Because of the personnel involved in the first two methods, individuals who
are committed to user-centered design and cognitive psychology in software design, these methods reinforce the cultural traits already present in the software. Though user testing depends on the nature of the testing population, testers usually belong to the same cultural background that sprung the software in the first place; it is therefore yet another reinforcing process.

None of this is meant to suggest that software vendors are wholly insensitive to multiculturalism. The growing international software market requires vendors to pay at least some attention to culture, lest they lose out on augmenting their sales by expanding their markets. There is a growing movement within the software industry towards localization and internationalization. Localization can be defined as the process of targeting the product to a local market by translating the product and adding local, specific features when applicable. Internationalization is the opposite: extracting the cultural context from a package, be it software, hardware, documentation, or even packaging (Calzat, 1996). However, these efforts do not address the basic cultural issues discussed above; they aim only at translating the features of their software into other languages and removing features that might offend some cultures, while leaving the cultural underpinnings of these features untouched. In fact, programming methods have been devised to accomplish the translation while leaving the original source code of the software untouched, as this is deemed more efficient.

Conclusion

This analysis of Outlook’s functionalities and user interface clearly shows how they reflect and reinforce many core characteristics of American culture. While this case
study is limited to one application, it is reasonable to assume that similar analysis on
other applications might yield comparable results. This begs the question: why should
we care whether software applications reflect and reinforce certain cultural traits?

We must look at this question in the context of globalization and the global spread
of American culture. As the influence of American culture grows around the world,
members of local cultures consistently express concern about the integrity and survival of
their ways of life. They particularly fear the influence of Hollywood films, television,
and popular music, which infiltrate their homes through cable, satellite, and the Internet.
Members of local cultures see these technologies as powerful carriers of American
cultural values, which they fear will erode their own culture, especially amongst the
young (Friedman, 2000). Given the analysis above, which clearly demonstrates how a
software application can be a carrier of cultural traits and values, would it not be
reasonable for these local cultures to worry about the potential effects of the widespread
use of software within their cultures? I argue that the potential influence of software to
influence cultural traits and values may be greater than that of the transient trends of
popular culture.

According to the Computer Industry Almanac (2002), the number of worldwide
personal computers in use surpassed 525 million in 2001, 67% of which are outside the
U.S. This number is expected to reach 1.1 billion by 2007. While it is impossible to
know the exact software content of all these PCs, most are usually loaded with the same
basic kinds of software: an Internet browser, an e-mail client, and at least some sort of
productivity software, most likely a word processor. This means millions of people all
over the world, whether at home, the office, Internet cafes, or other venues, are constantly
working, communicating, or entertaining themselves through software, while at the same
time they slowly internalize the thought processes, priorities, and values embedded in the
applications they use. As computer and software usage grows among cultures
worldwide, it will become increasingly important to understand how software can act as a
carrier of culture, and what effect, if any, this can have on other cultures.
References


