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The Technological Transformation of Leisure

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There is a large body of literature examining the role of communication technologies in the shaping of contemporary society. One area that has not been sufficiently considered in the literature is the influence of technology on the organization and experience of leisure. Historically, there has always been a relationship between technology and leisure, but the increasing use of the Internet and computer gaming technology during leisure time is facilitating a transformation in contemporary leisure activity and has relevance for themes in both leisure and Internet research. This article presents a brief examination of the historical relationship between technology and leisure, before examining the implications of technological change for themes in leisure and Internet research. Examined with reference to computer technology and the use of the Internet are (a) activity, place, and meaning; (b) leisure freedom and constraint; (c) deviant leisure; and (d) leisure and health.

Keywords: technology, leisure constraints, computer gaming, Internet use, virtual community

TECHNOLOGY AND LEISURE: HISTORICAL AND CONTEMPORARY PERSPECTIVES

Changes in the organization and experience of leisure activities and periods of leisure history have frequently been driven by technological developments, for example, film, TV, and video (Argyle, 1996; Rojek, 2000). Technological advances in transport and travel have also been important in providing access to leisure spaces such as beach resorts and the countryside (Argyle, 1996). The invention of the phonograph, TV, and film have all made it possible “to revise ordinary orientations of leisure by dramatically increasing our sense of interdependence and our access to information and entertainment” (Rojek, 2000, p. 24). Thus, technological changes are implicated in changing concepts of leisure and its organization, influencing both access and experience.

Leisure technologies such as film and TV remain integral to contemporary leisure, and developments in transport technology now allow international travel and tourism on an unprecedented scale (Argyle, 1996). These media and travel technologies have also led to greater knowledge of cultural diversity and global cooperation. Of relevance to this issue are notions of core and periphery. Core-periphery distinctions have been made in terms of global relationships of power, wealth, and information between and within nation-states, and urban spaces (Lash & Urry, 1999). Lash and Urry (1999) claim that in contemporary society the core, whether global or local, is characterized by dense networks of information, communication, technology, and services. They foresee the disparity between core and periphery, whether global or local, as increasing. Technological developments and the expansion of global markets suggest that this is the case, although it has been claimed that technology has provided some degree of integration between core and periphery.

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Alongside existing leisure technologies, computer technology and the Internet are emerging as important locations of contemporary leisure activity, creating new spaces for leisure participation. The Internet, e-mail, multiuser dimensions (MUDs), and newsgroups have led to the formation of thousands of groups discussing a range of topics, playing games and entertaining each other (Smith & Kollock, 1999). These virtual leisure spaces represent changing leisure activities and experiences, which have implications for the societal and individual experience of leisure, health, and well-being.

THEORETICAL ORIENTATION TO TECHNOLOGY AND LEISURE

The variety of alternative conceptualizations of “technology” and “leisure” in the literature is difficult to reconcile within the scope of the present discussion. I recognize the complexity of these debates, and the value of alternative theoretical orientations to leisure and technology. For the purposes of this article, however, a broadly social constructionist view of both technology and leisure is taken, emphasizing that both emerge from social processes and individual interaction with the environment. From this perspective, technology is viewed as neutral, emerging from a process of negotiation between social groups (designers, users, etc.), its consequences depending on the uses to which it is put (Grint & Woolgar, 1992). In an extension to the constructionist position, Langdon Winner (1985) argues that technology can be inherently political, specifically designed to embody values representing relationships between social groups. He cites the example of the American engineer Robert Moses, who designed bridges on the road connecting New York and Long Island. Based on information provided in Moses’s autobiography (Caro, 1974), Winner claims that the bridges were designed to deliberately exclude public transport between New York and Long Island. This served to exclude the poor and ethnic minorities from the “middle and upper class” beaches and parks of Long Island (Caro, 1974). This example is particularly relevant to the present discussion as this particular technology controlled access to leisure spaces for certain social groups. This illustrates how access to leisure spaces and the reinforcement of societal divisions can be maintained through transport and media technology.

Leisure meanings, activities, and attitudes are multiple and are influenced by constraining factors such as gender, class, and race. Leisure is spatially, temporally, and experientially constructed, fulfilling a number of functions (Iso-Ahola, 1997). Leisure may occur within the home; in specific leisure spaces, for example, bars, restaurants, and fairgrounds; or in outdoor spaces. People participate in leisure activities for experiences that are enjoyable and personally satisfying (Kabanoff, 1982), to relax and escape from the stresses of everyday life, and to improve their health (Iso-Ahola, 1997). It has also been claimed that leisure is related to self-esteem, feelings of control, lifestyle, and self-identity (Iso-Ahola, 1980).

CLASSIFICATIONS OF TECHNOLOGICAL LEISURE

Classifications of leisure activities and their consequences for well-being are central to leisure research. The serious-casual leisure dichotomy is of particular relevance to the investigation of the relationship between technology and leisure (Stebbins, 1982, 1997). Serious leisure activities, or hobbies, are participated in a systematic manner over sustained periods of time (Stebbins, 1982, 1987). The importance of the use of skills, knowledge, and experience is central to the concept of serious leisure. Casual leisure is defined as an “immediately intrinsically rewarding, relatively short-lived pleasurable activity requiring little or no spe-

cial training to enjoy it" (Stebbins, 1997, p. 18). By this definition, casual leisure is considered to be any activity that does not meet the criteria of serious leisure.

How do classifications of leisure activity relate to Internet use and computer gaming? Where computer gaming and Internet use have been considered in the literature, they have been considered as casual, to a large extent passive, and potentially detrimental to mental and physical health (Griffiths, 1997). However, the multiplicity of uses of the Internet and computer technology make such classifications difficult. Internet use and computer gaming may be considered to be serious leisure pursuits by some individuals, or they may encompass the subtypes of casual leisure outlined by Stebbins (1997) as play, relaxation, passive entertainment, active entertainment, sociable conversation, and sensory stimulation. Computer use cannot be regarded solely as passive entertainment. Internet use involves a certain level of skill, activity, knowledge, and experience in seeking opportunities for interaction, looking for sites or newsgroups of interest, and so on. This suggests that Internet use can be considered as supporting a variety of different leisure types.

TECHNOLOGY AND LEISURE MEANINGS, ACTIVITIES, AND SPACES

How does the continuing technological transformation of leisure influence contemporary leisure meanings, activities, and spaces? In contemporary society, traditional leisure activities and spaces (e.g., TV, cinema, socializing, clubs, and sports) exist alongside those that are technological (e.g., computer games and the Internet). Traditional notions of leisure spaces and activities may also be reproduced technologically in virtual leisure spaces (e.g., computer games reproducing sporting activities, shopping, socializing, and exchanging information). Technological leisure activities fulfill the same functions as those considered traditional; they provide relaxation, stimulation, escape, social interaction, and the development of self-identity and lifestyle. Although this suggests a continuity in leisure functions, it seems that the new leisure technologies will lead to other changes in the contemporary experience of leisure.

Changing temporal, interactional, and spatial dimensions of leisure in cyberspace have not been fully considered in the literature, and they require further research. In cyberspace, the experience of time and interaction is altered; interaction can be both synchronous (as in MUDs) and asynchronous (as in newsgroups) (Smith & Kollock, 1999). The individual may simultaneously be involved in synchronous and asynchronous interaction within virtual leisure spaces while being present in the external environment. Home computing and the Internet challenge traditional conceptions of the spatial and interactional organization of leisure by blurring the boundaries between domestic, virtual, and commercial leisure spaces. The domestic use of the Internet and Internet cafés illustrate the intersection of traditional and virtual leisure spaces. The increased commercialization of the Internet and online shopping also suggest a blurring of domestic and commercial leisure spaces. Contemporary leisure spaces, then, may be experienced as multiple, diverse, and simultaneous. This suggests the ability of technology to create "heterotopic space . . . the juxtaposing in a single real place [of] several places" (Foucault, 1986, p. 25). But to what extent are these multiplicities of leisure experience significantly different from other leisure experiences? Rojek (1995) claims heterotopic space is not specifically technological; such spaces are also to be found in cinemas, shopping malls, amusement arcades, and so on. These are spaces where fantasy, reality, and fiction converge, a "disembedded leisure space" that individuals inhabit to fulfill a number of functions (Rojek, 1995). Although such spaces are already integral to leisure experi-

ence, the Internet extends the notion of heterotopic space by increasing anonymity and reducing inhibition. These disembedded or *cyber* spaces are the context in which virtual communities form.

VIRTUAL COMMUNITIES

Utopian visions of the empowering qualities of the Internet view virtual communities as a new public realm where humanity can re-create the sense of community lost in offline society (Jones, 1998; Rheingold, 1993; Schuler, 1996). The anonymity and ambiguity of cyberspace is claimed to create a unique opportunity for individuals to create their own identity and to be accepted for their conduct and communications rather than by social markers such as gender, class, and race (Smith & Kollock, 1999). From this perspective, the Internet is seen as empowering, an egalitarian space, a frontier of electronic democracy (Bellamy, Horrocks, & Webb, 1996).

Virtual communities are an important location of leisure activity in cyberspace. These communities are structured around leisure ideologies, interests, and lifestyles, emphasizing the claim that "cyberspace is predicated on knowledge and information" (Jones, 1998, p. 15). It has also been claimed that in cyberspace "ideography replaces geography" (Holderness, 1994), so that ideas rather than physical location are the primary engine of leisure organization. These are "neo-tribalistic" emotional communities based around common interests or lifestyles (Maffesoli, 1996).

Claims of the empowering nature of the Internet and the renewal of a lost sense of community within virtual communities can be challenged on a number of points. First, empowerment and electronic democracy are available only for those able to gain access to the Internet. Freedom, choice, and access are central to the concept of leisure (Iso-Ahola, 1997; Neulinger, 1974), but certain factors, such as income, gender, and race, may limit access to leisure technologies. Income is a particularly important determinant of Internet access; a new computer with modem costs approximately one year's unemployment benefit in the United Kingdom (Holderness, 1994). The ability to afford and maintain the technology that provides access to cyberspace demonstrates that claims for the empowering nature of technology speak from a privileged position of access. Although the intentions of designers, researchers, and politicians may not be exclusive, access to computer technology can be seen as analogous to the bridges on the road between New York and Long Island, excluding the poor and racial minorities from middle-class leisure spaces.

This demonstrates that issues of access and constraint are not consistent with utopian visions of cyberspace. Evidence suggests that traditional expectations of gender and race are reproduced and reinforced in cyberspace (Smith & Kollock, 1999). Burkhalter (1999) claims that race does not disappear online; racial identity is identified by new racial markers—for example, attitude and expressed values. Similarly, O'Brien (1999) claims that empowerment and liberation from gender role expectations in cyberspace appear to be illusionary. She claims that people re-create themselves as stereotypical ideals rather than in ways that challenge existing stereotypes. Research on Internet users suggests that the majority of Internet users are White, middle-class males and/or academics and professionals (Aurigi & Graham, 1998). These findings suggest that factors identified as structural leisure constraints in leisure research, for example, gender, race, and income (Crawford, Jackson, & Godbey, 1991), have implications for access to leisure technologies and freedom of expression and equality within virtual leisure spaces.

Third, even if access is successfully negotiated, electronic communities have been criticized as lacking the stability, commitment, and loyalty of offline communities (Jones, 1998).

Information exchange and the specificity of interests and lifestyles around which virtual communities form have been criticized as taking a narrow understanding of community (Kling, 1996). Doheny-Farina (1996) claims that it is easier to join and leave online communities because they do not require the same amount of commitment and loyalty. This mirrors the claim that “neo-tribes” are temporary emotional communities formed around leisure preferences and lifestyles that people move between easily (Maffesoli, 1996).

Claims regarding the authenticity of virtual communities have been countered by the suggestion that community is not a zero-sum game (Wellman & Gullia, 1999). Heavy involvement in online communities does not necessarily reduce the capacity to be part of an offline community (Wellman & Gullia, 1999). It has been suggested that there can be a degree of reciprocity between online communities and face-to-face communities, with electronic support groups providing support for those attending “real” support groups (King, 1994).

Regardless of whether virtual communities are transient, illusionary, or weakly structured around the exchange of specific information, they do exist. Virtual communities represent a space in which many people spend their leisure time. Information exchange has been claimed to be one of many social resources available in cyberspace (Wellman & Gullia, 1999). Others social resources available in online interaction include social support and friendship, for example. These are resources that may enhance well-being and provide a sense of community and solidarity. Virtual communities may also be structured around sexual preference, varying from commercial adult pornography sites, newsgroups, and chatrooms to more antisocial or deviant interests such as pedophilia and bestiality. These communities may form specifically for the purpose of the exchange of deviant images and information, or in more extreme cases to organize criminal activity. The use of the Internet for such activities raises issues of freedom, regulation, and censorship.

DEVIANT LEISURE AND INTERNET USE

Rojek (2000) highlights the need to consider deviant leisure activities as existing on a continuum with legal and “normal” leisure activities. He argues that consideration of deviant leisure has been marginalized in leisure research, designated as a matter for forensic or clinical psychologists because of the underlying moral view in leisure theory that leisure is inherently good. Criminal activity and deviant leisure have been identified as sources of fun, self-esteem, and enjoyment for some individuals (Katz, 1988). Leisure activities are often significant causal factors in explaining drug abuse, alcoholism, dangerous sexualities, violence, and murder (Rojek, 2000, p. 147). The anonymity of cyberspace, together with the formation of ideographic online communities, provides an opportunity for the exchange of deviant and illegal information and images. The philosophy of open access and free communication may consequently be in direct conflict with the social and moral values of many users and society in general (Langford, 1998). Difficulties in policing and regulating cyberspace, and the proliferation of pornography and other illegal information and images, are therefore a cause for concern for politicians, Internet service providers, and law enforcement agencies (Langford, 1998).

To what extent, then, does cyberspace represent a space for deviant leisure? Rojek (2000) uses the concept of “liminal” leisure (Turner, 1992), leisure activity that exists on a continuum from moral and legal to subversive and deviant and tests the limits of moral and legal acceptability. The Internet represents a medium that supports a variety of leisure activities and spaces, existing on such a continuum. Liminal leisure is implicated in social change by providing the opportunity for the evaluation of cultural values (Rojek, 2000). The Internet could be viewed as a liminal leisure space. One of the fundamental values ascribed to

cyberspace is its location as a space for debate, freedom of expression, and democracy. Conspiracy theory sites and sites focusing on censorship and democracy are all examples of liminal leisure spaces on the Internet. Liminal leisure sites organized around deviant leisure activities, such as fetishism and pedophilia, also test the limits of acceptable moral standards by providing a forum for users to legitimate ideologies and activities considered deviant in society as a whole. The social resources of support and legitimization of beliefs are social resources in virtual communities that although in the abstract may seem desirable, raise important issues relating to freedom, democracy, and regulation. In some situations, virtual communities may encourage individuals to express deviant desires and act on them offline.

One of the major concerns about the lack of regulation in cyberspace is the availability of pornography. Shaw (1999) claims that there has been a lack of attention to pornography as a leisure activity and its consequences. Pornography is a multi-million-dollar leisure business on- and offline (Baird & Rosenbaum, 1995) and is hypothesized to represent a considerable leisure activity for males (Shaw, 1999). Less is known about females' use of pornography in leisure, and there are few investigations of the use of online pornography. This represents an area for future multidisciplinary research by leisure theorists, psychologists, and so forth.

Another interesting aspect of deviant leisure related to Internet use is the notion of *wild zones* (Presedee, 1994; Stanley, 1997). This term was initially used to describe deregulated urban spaces, for example, shopping malls and raves, leisure spaces where traditional notions of legality and morality are relaxed. It has been claimed that these deregulated leisure spaces are the location for a large amount of criminal activity (Rojek, 2000). Cyberspace is often claimed to be a wild zone in which space is deregulated and a variety of activities varying from legal to illegal are conducted. The ability of this technological wild zone to encourage deviant and illegal behavior is increased by virtual anonymity and ambiguity. Studies of the variety of uses, both legal and illegal, of deregulated heterotopic virtual leisure spaces are required. Research investigating the notion of a continuum between legal and illegal leisure activities on the Internet is also required.

Cyberspace provides opportunities for the pursuit of invasive and mephitic leisure (Rojek, 2000). Invasive deviant leisure is participated in by individuals who lack self-respect, feel alienated from others, and use leisure as a focus for repressing disliked parts of self and withdrawal from the world (Rojek, 2000). Rojek cites the example of drug users, although other individuals may withdraw into cyberspace and engage in the construction of identities that mask their own perceptions of inadequacy. Individuals who engage in mephitic leisure activities have a lack of respect or trust for others, viewing others as objects and engaging in leisure practices that offend the moral order of society (Rojek, 2000). Rojek cites sex tourism, abuse, murder, and pedophilia as examples. Online stalkers and virtual communities based around deviant sexual practices are examples of mephitic leisure activities in cyberspace. These concepts form the basis of a useful classification of deviant leisure when considering issues of deviance and cyberdemocracy.

In a previous section, the role of technology in determining core-periphery relationships globally and locally was discussed. In this section, the concepts of core and periphery are extended to examine leisure activity and social integration through the Internet. The Internet and virtual communities allow the development of ideographic leisure communities, providing access to information and images considered peripheral to the established moral and legal order. The majority of Internet use is centered around legal and morally acceptable leisure activities and may support real-life leisure activities. This, then, may be considered as the core. The technology available in contemporary society may therefore encourage the flow of information from the periphery to the core and lead to the increasing normalization of deviant leisure ideologies and images. From this perspective, technology allows information

flows that reverse the accepted notion of information flow from core to periphery (Lash & Urry, 1999).

Computer technology and the Internet provide opportunities for self-expression, legitimization, and support in virtual communities that exist on a continuum from legal to illegal. The wild zones of the Internet with their relative freedom from regulation and censorship are able to support deviant leisure ideologies. Legitimization and support of such ideologies in cyberspace may increase deviant behavior in society as a whole. This suggests that utopian claims concerning empowerment and freedom in cyberspace must be tempered by the acceptance of the use of the medium for deviance, and an examination of mechanisms of regulation to protect the rights of individuals using the Internet for leisure.

LEISURE AND HEALTH

The relationship between leisure activities and health is the focus of much research within leisure research and has relevance to the consideration of the relationship between technology and leisure. As was previously mentioned, there are a number of dichotomies used to classify leisure activities and their influence on health. The serious-casual dichotomy has already been discussed in relation to Internet use and computing. Another dichotomy used in research, particularly in relation to health, distinguishes between active and passive leisure (Iso-Ahola, 1997). Active leisure, characterized as involving physical activity and social interaction, has been found to be related to improved physical and mental health (Iso-Ahola, 1997). Physical exercise has been found to reduce levels of depression and anxiety and reduces the adverse influence of stress (Caltabiano, 1995; Coleman & Iso-Ahola, 1993). Participation in passive or escapist leisure activities (e.g., watching TV, reading) is related to reduced physical and mental health (Iso-Ahola, 1997).

How does the increasing use of computer technology and the Internet influence health? As was previously mentioned, the notion of activity is central to the relationship between leisure and health, and research suggests that physical activity has the most beneficial influence on health (Iso-Ahola, 1997). The use of computer technology and the Internet as a major focus for leisure activity may influence health indirectly by reducing participation in active and health-enhancing leisure activities. Lack of exercise is known to be detrimental to health because physical activity reduces stress, anxiety, and depression (Iso-Ahola, 1997), and it is possible that these psychological problems may become more prevalent as technology plays a greater role in leisure.

It is possible that Internet use may improve mental health through the varied opportunities for social support and interaction. This may enhance people's coping skills or provide interpersonal resources in times of crisis. The anonymity of cyberspace and the proliferation of self-help groups and Web sites providing information about illness and health promotion (Wellman & Gullia, 1999) may have mental health benefits. Internet use may also enable individuals to overcome interpersonal leisure constraints related to the availability of suitable leisure partners (Crawford et al., 1991). The development of virtual communities allows individuals to meet others who share similar leisure interests. Intrapersonal constraints (e.g., stress and depression) may be alleviated by online participation, providing greater control and anonymity, and reduce emotional states and self-consciousness. Severe depression or stress may decrease motivation to participate in leisure activities, but the Internet provides resources, such as social support and health information, that may enable individuals to overcome their psychological difficulties.

It has also been claimed that technology and Internet use may have detrimental influences on mental health. The relationship between aggression and violent computer games is popu-

lar in the media and in the literature. However, critiques of such research have pointed to inconsistencies and inconclusiveness and present evidence that children play computer games for enjoyment, fun, and a sense of challenge (Griffiths, 1997). There is also evidence that participation in computer gaming does not occur to the detriment of other leisure and educational activities (Barnett et al., 1997; Blumberg, 1998). It would seem therefore that further research considering a variety of behavioral and health outcomes is required before any clear conclusions can be drawn about the relative influence of computer gaming and Internet use on psychological and physical well-being.

CONCLUSION

This article provides a preliminary discussion of the relationship between technology and leisure. It is recognized that differing theoretical orientations within discussed areas are complex and may also contribute to the present discussion. An examination of these issues is beyond the scope of the present discussion, but it is hoped that the issues raised here will encourage debate between researchers interested in the relationship between technology and leisure and will illustrate the importance of investigating deviant leisure activity within cyberspace. The primary focus of this discussion has been how leisure technologies such as the Internet are transforming the contemporary experience and organization of leisure. The Internet provides multiple leisure spaces that support a variety of leisure activities, suggesting changes in the interactional, spatial, and temporal experience of leisure. These changes demonstrate the need to research the multiplicity of uses of new technologies and the Internet in leisure, and the implications of this for individual psychological and physical well-being. The utopian claims made for the Internet must be considered in light of issues of access, the persistence of race and gender in online interactions, and the use of technology for deviant leisure activities. The free exchange of information and opinions and the opportunity to meet and interact with people from a variety of geographical locations may change traditional relationships between core and periphery. It is also possible to claim that such distinctions have no relevance in cyberspace, which is, by definition, deregulated and heterotopic. The anonymity and ambiguity of the Internet and virtual communities allow the development of ideographic leisure communities that may not be legally or morally acceptable. Virtual communities structured around subversive, pornographic, or violent ideologies raise issues of regulation and protection for researchers, Internet service providers, law enforcement agencies, and national governments. The legality of these forms of leisure activity in cyberspace is consistent with the claim that leisure theorists need to consider the continuum of illegal and legal leisure activities in contemporary society (Rojek, 2000).

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