Analysis of Pinball's Purpose Surrounding and During NYC's Pinball Prohibition Using the Social Construction of Technology Framework

STS Research Paper
Presented to the Faculty of the
School of Engineering and Applied Science
University of Virginia

By

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April 8, 2024

On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

Craps, Roulette, Blackjack, slot machines: four well-known gambling games. However, few are aware that during the 1900s, pinball was used for gambling too. In fact, New York City banned it for over thirty years. Pinball has a complex history. It fluctuated in form and function as different groups battled over its purpose and effects. Current understanding often debates whether pinball's purpose was gambling or amusement. They restrict their examination to a binary analysis, failing to consider that pinball may possess several different identities simultaneously. As pinball developed during the twentieth century, these two schools of thought pushed and pulled, yet both were always present. Halfway through the century, World War II marked a cultural shift. Nonetheless, throughout each era, both perspectives remained relevant. Therefore, pinball's meaning was doubled. Leading up to, during, and in the aftermath of pinball prohibition in New York City, I argue that the pinball machine served a dual purpose as both a gambling and amusement device. This is because while it was facing persecution for its gambling applications, users continued to engage with the game for entertainment, and even as public perception shifted to view it primarily as an amusement, lingering associations with gambling persisted. Primary sources such as images, an interview, a newspaper article, and a memoir support these claims. The Social Construction of Technology framework's concept called "interpretive flexibility" will be used to understand how an artifact's meaning and design are derived from its stakeholder's perceptions and values. This paper informs readers on how an artifact like pinball may possess multiple meanings simultaneously, because meaning is defined by these interpretations.

Background

Original French Bagatelle Table (left) and Redgrave's Updated Bagatelle Table (right)

Considered the ancestor of pinball, Bagatelle (pictured left) was brought to America by French soldiers during the Revolutionary War. It was a simple game and involved using a cue to knock balls into holes on a slanted table. An Englishman living in America named Montague Redgrave is credited with updating this simple game in 1871 (pictured right). He replaced the cue with a spring-operated plunger, added brass pins for obstacles, and installed enclosed "courts" surrounding bells. Redgrave's new Bagatelle tables ranged from small tabletop models to ornate five-foot-long versions (Hoffman & Sorce, 1993). Eventually, a Chicago manufacturer of coin-operated games turned bagatelle into a commercial success, called "Baffle Ball." It should be noted that "the pinball game was originally designed for amusement only, and had no gambling feature." (Anonymous, 1950).

Literature Review

The debate over pinball's purpose has been centered around its criminality. With slot machines outlawed, pinball, a game that has been compared to slot machine gambling many times, continuously had its legality questioned. The discourse comes down to whether or not pinball gives winners a payout based on chance. In the mid-1960s, an article was published in the Journal of Criminal Law and Criminology by Arthur J. Bilek and Alan S. Ganz. In the following edition, Rufus King published a rebuttal to Bilek and Ganz. The former, "The Pinball Problem—Alternative Solutions" by Bilek and Ganz, claims there are two separate types of pinball machines—those that are built for fun and those designed for gambling. The issue is that they are very difficult to tell apart since their key mechanisms such as a score meter, tilt mechanism, or replay meter are contained within identical shells. They say the problem America faces, the struggle to prosecute gambling machine owners, is due to this ambiguity. They offer two legislative solutions: the first is to simply ban all pinball; the second is to give police the right to inspect machines. The Pinball Problem in Illinois. An Overdue Solution by Rufus King is a rebuttal to the first article. King claims there are huge differences between gambling and amusement machines, that they are easy to differentiate. He also says that by this time, only one manufacturer was making machines clearly designed for gambling.

Both papers offer a solution that involves giving police the right to inspect machines so that the gambling ones may be purged. This reflects a belief that pinball is primarily a game of amusement. However, I believe these authors fail to recognize that pinball's identity comes from the way society sees it. If they view it as a gambling device, the technology will develop toward that form. If it is valued for its amusement, that is where it will become strongest. They are concerned with differentiating pinball machines, yet neglect to explore the historical context of

pinball's duality. This research paper will investigate such things to inform the question of pinball's meaning, and in doing so, show how an artifact can represent two purposes simultaneously.

Conceptual Framework

This paper uses the Social Construction of Technology (SCOT) framework to support its central arguments about pinball's purpose. The question itself is deeply rooted in one of SCOT's primary elements, interpretive flexibility. Social Constructionism was developed and popularized by Wiebe E. Bijker and Trevor Pinch. It says a technology's development is influenced by a wide variety of social, cultural, economic, and political factors. These require technology to respond to society's values, interests, and concerns. SCOT is a response to Technological Determinism, which says that technology develops independently from society and that later, the technology will have powerful effects on the character of a society (Johnson, 2019).

The key concepts of SCOT are interpretive flexibility, relevant social groups, and closure and stabilization. Interpretive flexibility is key to this paper, and says that technologies aren't inherently good or bad, nor do they have predetermined uses. Their meaning and purpose emerge through social processes and negotiations among various stakeholders. These stakeholders can be collected into what SCOT refers to as relevant social groups. A discussion paper by Bijker and Pinch explains that "the key requirement is that all members of a certain social group share the same set of meanings, attached to a specific artefact" (Pinch & Bijker, 1984). Social groups may have varying interests, perspectives, and levels of influence, but it is their interpretations of a technological artifact and the problems they intend for it to solve that guide its design iterations. The last key concept is closure and stabilization. These terms describe how the discourse over a technology may die down as it gets closer and closer to a model that will satisfy all relevant

social groups. This ceasing of discussion is called closure, and the ceasing of the technology's redesigning is called stabilization. Bijker and Pinch write, "Closure in technology involves the stabilization of an artefact and the 'disappearance' of problems. To close a technological 'controversy' the problems need not be solved in the common sense of that word. The key point is whether the relevant social groups see the problem as being solved." (Pinch & Bijker, 1984). Therefore, it should be noted that closure revolves around the social groups' impression of the technology, rather than if a problem is best solved objectively.

SCOT will be used to explain how several relevant social groups, including those who see pinball as gambling and those who see pinball as a simple game, engage in discourse that shaped the development of pinball technology. The concept of interpretive flexibility is used to assert that pinball is viewed as both and therefore is both.

Analysis

Pinball Persecuted For Gambling, Yet Entertainment Purpose Remains Strong

During the first few decades following the advent of pinball, its gambling reputation grew, resulting in its persecution, but some still engaged with the game for entertainment purposes only. Pinball persecution can be traced back to about a decade before World War II, when its predecessor was developing. As pinball technology was modified throughout the 1930s and 40s, the voices of the relevant social group who saw it solely as a gambling device became louder. This movement was led by Mayor LaGuardia and included other lawmakers, police, concerned parents, and churches. In response to sly pinball tactics designed to appeal to the interests of another subset of the first relevant social group, actual gamblers, LaGuardia and others waged a war on pinball which would result in a citywide ban. They were concerned that pinball was a waste of time and money and that it would corrupt the city. Nonetheless, a second

relevant social group, those who saw pinball as merely an amusing game, continued to influence pinball technology and culture.

Although pinball began as an innocent game, there were those who sought to monetize it. In this difficult economic era, owners of establishments like candy stores, bowling alleys, and bars valued income and cared little about what repercussions came with it. In accordance with the SCOT framework, their interests directly influenced the technological developments that arose in pinball. These stores began offering prizes for high scores, ranging from, "gum, candy, cigarettes and cigars to finer items like chinaware, cocktail sets, jewelry, and even lamps" (Ivy, 2013). In 1933, pinball machines like Bally's "Rocket" were manufactured to automatically dispense coins, relieving shop owners from rewarding responsibilities (Jensen, 1996). When these were prohibited, new models paid out redeemable tokens, then tickets, both of which were unsuccessful (Anonymous, 1950). Pinball gamblers were unable to get past the laws until 1935, when the "replay" or "freeplay" mechanism was introduced. This system allowed players to earn free games, which would be tallied up and discreetly redeemed for money. If a police officer was present, the player could continue to use their free games unassumingly (Black, 2011). Many of these early payout machines were called "one-balls" for the single ball per play.

Pinball came under attack as New York City Mayor Fiorello LaGuardia, churches, and school boards became pinball antagonists in response to the shaping of the pinball industry by the group interested in gambling. LaGuardia declared that the distributors and manufacturers were "slimy crews of tinhorns, well-dressed and living in luxury on penny thievery" (Hoffman & Sorce, 1993). Quotes like these indicate his belief that such gambling preyed on the already struggling lower class. Churches and school boards also opposed pinball, believing it corrupted children's morals by encouraging coin-stealing, skipping school, and money-wasting even to the

point of going hungry (Klein, 2016). LaGuardia cunningly amplified their concerns, saying the industry annually took millions of dollars from the "pockets of school children in the form of nickels and dimes given them as lunch money." (1942). Although LaGuardia may have believed his own stances, he sought to use the issue to propel his reelection. After the Pearl Harbor attack at the end of 1941, LaGuardia used the war effort to sell his agenda. The "Salvage for Victory" Campaign led LaGuardia to call for "the metal in these evil contraptions [to] be manufactured into arms and bullets which can be used to destroy our foreign enemies" (1942). In January of 1942, LaGuardia officially passed a ban on all pinball machines and ordered police to raid businesses, confiscate and destroy machines, and arrest owners.

"Salvage for Victory" Political Poster

Police Commissioner William P. O'Brien destroys a pinball machine at a police garage

Although pinball was under attack, there were still many who enjoyed the game for just that—a game. Not all pinball machines had these gambling modifications, and with the pinball enthusiast community alive and well, closure (as defined by the SCOT framework) had not yet arrived. This relevant social group valued cheap entertainment amid the Great Depression.

Pinball was a low-cost game that anyone could play to forget their daily troubles (2023). Prior to the gambling adaptations, Baffle Ball, invented in 1931, took America by storm. It was cheap to play, and the operating cost was low (Jensen, 1996). With the advent of pinball gambling, these players did not disappear. Even before the introduction of flippers in 1947, players developed creative ways of controlling the ball. The first was through launch speed, accomplished by adjusting how far the spring-loaded plunger was pulled back. The second was by carefully bumping, shaking, and tilting the machines, a move termed "gunching" (Jensen, 1995). A culture of deviance evolved around these dedicated pinball players. A conference paper published in 1981 called "The Social Context of Pinball: The Making of a Setting and Its Etiquette" describes how "the aura of deviance and its consequent labeling effect upon those who frequent pinball settings provides a special appeal for some players," adding, "a popular magazine set forth a public view of long standing when it characterized pinball as 'a sucker's game and a gangster's racket'." The author suggests that the criminality associated with pinball and the normalcy of "cheating" methods like gunching resulted in any proponent of pinball to be thought of as a lowlife. Although perhaps negative, the rebel culture surrounding pinball demonstrates that even at this time, there were those who played pinball for enjoyment, not to earn money.

While some manufacturers adapted pinball machines for gambling, others continued to innovate for amusement purposes. This indicates that the relevant social group interested in playing pinball for entertainment was significant enough to drive a technological change. In 1935, a pinball company adapted a coin chute to allow players who achieved a sufficient score to play another game for free. The author of The Pinball Problem, Rufus King, compares this to earning an extra frame in bowling to show that this does not offend any traditional notion of gambling, since there is no prize or pay-off to be earned. It should be noted that this same

technology was adapted by Chicago gambling manufacturers to become the described earlier. At this time, pinball straddled both the gambling and the amusement world, which was driven by opposing values and ideas of several relevant social groups.

Pinball Now Seen As Amusement, Yet Gambling Persists

By 1945, pinball became best known as a game of amusement, yet evidence of its association with gambling persisted. The end of World War II marked the beginning of this shift in the public perception and trajectory of pinball technology. With the metal salvaging campaigns over, people had one less reason to distrust pinball. Also, pinball manufacturers had been tied up in war production, so afterward, there was a tremendous demand for pinball games (Anonymous, 1950). The Johnson Act of 1951 made it a federal offense to transport gambling devices to states where they were not legal (Jensen, 1987). With the arrival of flippers and other sophisticated updates, pinball became further cemented as a game of skill and enjoyment, leading to the lifting of the ban in 1976. However, some still clung to old views, seeing pinball as an offensive game of chance.

To most, pinball was undoubtedly seen as a game of amusement only. A journal article entitled “Slot Machines and Pinball Games” claims that “after the war, it became apparent to the manufacturers that the pinball game's greatest appeal was as an amusement device… manufacturers realized that in those localities where the machines were operated as petty gambling devices, their industry was doomed” (Anonymous, 1950). In a survey, one of the leading manufacturers even disclosed that “90% of the operators were using pinball machines as amusement games only.” This figure confirms that the days of pinball gambling were ending. Pinball culture itself had become more mainstream. Throughout the 1950's and 60's, the pinball industry has attempted to rebrand the game’s deviant image. Celebrities advertised they owned

pinball machines, magazines picked up articles about the game, and large entertainment companies merged with pinball brands. For example, Columbia Pictures purchased D. Gottlieb and Co. and Williams was purchased by Gulf and Western (Conn, 1981). The Who, a popular rock band, even released a song called “Pinball Wizard,” glorifying its play.

Just as the relevant social group of anti-gamblers and gamblers themselves influenced gambling technology adaptations, so too did the widespread enjoyment of pinball cause its own fun updates. Flippers were invented in 1947 and were widespread within a couple of years (Jensen, 1995). “Add-a-ball” made its entrance in 1960, which was similar to “free-plays” but prevented gambling since it was more difficult to cash in a ball (Black, 2011). During the 1950s, Chicago companies introduced innovations that included “multiplayer games, score reels, and increasingly sophisticated playfield mechanisms and art packages” (2020). By the late 1970s, microprocessors and solid-state technology enabled digital displays and added complex rules and digital sound effects.

Finally, the stage was set for pinball prohibition to be dismantled. In this era, pinball technology had just about stabilized as a game of skill and fun. In 1976, Roger Sharpe, a writer and prominent pinball player, was called before the city council to testify against the ban. In an interview, Sharpe recalled the day (Ryan, 2021). When repeatedly asked who was paying him to be there, he assured the council that he was there as a journalist and budding historian. He was tasked with proving the skill element of pinball. In a display likened to Babe Ruth’s 1932 home run, he called his shot and made it perfectly. The resolution passed six-to-nothing.

Although the perception of pinball had shifted majorly since 1950, there were still lingering elements of gambling. It took over twenty-five years since flippers were widely implemented for the ban to even be overturned. Opposition remained entrenched in NYC even

three decades after LaGuardia's crusade. An article in the New York Times retells the "heated one-hour debate." Among the dissent were worries that the passage of the bill would result in "nothing more than further tax on the poor" and that it would become "a magnet for racketeers and racketeering in the city." These council people still saw the pinball machine foremost as a gambling instrument. Another quote from a Queens councilman explains that while pinball may have been reformed, it would soon return to its nefarious past: "it will bring rampant vice and gambling back to the city" (Klein, 2016). SCOT stresses the importance of social groups' interpretation of technologies. Regardless of what the evidence or technology suggests, these interpretations are powerful and can lead to destabilization. This means that even if closure has occurred, technologies are always subject to renegotiations, reinterpretations, and changes in their social context.

In fact, during the 1950s and 60s, there were a few notable pinball updates that supported gambling purposes. Although the vast majority of manufacturers were done including meters or other gambling features, Bally Technologies, Inc. began producing "payout" pinballs after the war (Jensen, 1987). Also, a pinball game called "Bingo" was produced for over a decade. It had five to eight balls to get around the "one-ball" bans. By landing balls in certain spots, players could win "BINGO" and earn a cash prize.

While I have supported the claim that even after the war, many still considered pinball to be a tool for gambling, it could be argued that there was no concrete evidence of pinball gambling. This is disproven by a book called "Smalltime: A Story of My Family and the Mob" by Russell Shapiro was published in 2021. It is a historical account of Shapiro's family business in Johnstown, PA. Breaking an unspoken vow of silence, Shapiro tells of his grandfather's business, "City Cigar," a mob headquarters and front for gambling machines. We are told that

this business was functioning as late as 1960, with its “ten pool tables, one billiard table, and several pinball machines” (Shorto, 2022). Once again, the perspectives of minority social groups can be just as relevant as those of the predominant groups. Holdovers from past attitudes can be seen even today. According to the Juvenile Justice Code, in South Carolina, it is illegal to play pinball under 18 years old. In 2010, a retro arcade was shut down by an ordinance prohibiting arcades on Main Street in Beacon, NY from the mid-1960s (Black, 2011). This was the result of a misunderstanding, yet it would not have happened if pinball was no longer associated with gambling.

Conclusion

The mid-1900s saw the game of pinball redesigned many times in response to the dynamic interplay between different social groups, each with distinct perspectives and values. At first, pinball was most widely known as a gambling machine, and after World War II, it was accepted to be an entertainment device. However, during both distinct periods, the opposing view remained present and relevant. Based on the Social Construction of Technology framework, the story of pinball serves as an example of interpretive flexibility between two opposing opinions and tells us that a single technology can truly be both. In the end, it is just a machine. What matters is how it is interpreted and used which determines what its true purpose is.

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