

HAND VERSUS MOUSE:
ROLE IDENTITY FORMATION OF COMPETING INSTITUTIONAL LOGICS IN
THE U.S. ANIMATION FILM INDUSTRY, 1991-2008

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By

EuiSin Kim

Dissertation Committee:

Mooweon Rhee, Chairperson
Richard Brislin
Robert Doktor
Seio Nakajima
Patricia Steinhoff

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ABSTRACT

In this dissertation, I investigate how competing logics are shaping role identity formation and behavior of actors as to explore how competing logics are managed and maintain their co-existence for a lengthy period of time when new technology emerges in an organizational field. I show how 2D animators and 3D animators form their role identities in response to competing institutional logics. Based on content analysis, I address salient competing institutional logics at the societal level. At the micro level, I explore how 2D animators and 3D animators adjust their role identity in response to competing situations. Previous literatures on competing institutional logics explore rivalry relations at the societal level and the tendency to form defensive role identities toward each other. However drawing on this analysis, I develop a theoretical model of symbiotic identity formation at the micro level although hostile competing logics co-exist at the societal level. Overall, I present the role identity formation change process with competing logics and their co-existence within the animation film industry, with the concept of symbiotic identity as its unique centerpiece. The second part of this study attempts to identify likely participants in this symbiotic identity formation: actors of a certain social network position are more likely to show goal-oriented identity spreading behavior. This part of the study contributes to previous literature on how logics influence the behavior of actors. In this study, I argue that 2D animators in powerful network positions and structural hole positions are more likely to work for 3D films as 2D animators which influence 3D animators to form a symbiotic identity.

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Chapter I: Introduction

Recent scholarship in institutional studies has paid attention to the role of identity in relation to institutional logics, since identity plays a critical position in connecting the institutional logics and behaviors of individuals (Rao, Monin, & Durand, 2003; Reay & Hinings, 2009). Relatively few studies have connected all three aspects institutional logic, identity, and behavior despite its importance of the connection. It has been shown in Rao, Moin, and Durand's (2003) research that when actors of incumbent logic perceive identity discrepancy, actors are likely to show the behavior of leaving that institutional logic which produces institutional change. As this study shows, it is important to scrutinize all three aspects in order to understand how competing institutional logics are managed and maintain their coexistence and also to understand the whole institutional phenomenon (DiMaggio & Powell, 1991).

Previous researches have narrowly focused only on exploring the relationship between institutional logic and identity. In line with institutional change literature on the introduction of new logic to a field, the process of building a "resistance to change" identity against challenging logic has been shown to be an important mechanism by which micro-level actors can respond to certain macro-level logics (Creed, Dejordy, & Lok, 2010; Greenwood & Suddaby, 2006; Rao et al., 2003). Constructing an independent identity by a micro-level actor has been seen as a resistance to new logics entering their field (Davis & Christopher, 2005; Marquis & Lounsbury, 2007).

The institutional logics literature has been investigating aspects of how institutional logics influence at the micro-level (Creed et al., 2010; Glynn & Lounsbury, 2005; Kim & Rhee, 2009; Kim & Rhee, 2010). For example, Glynn and Lounsbury (2005) analyzed critics' reviews of the Atlanta Symphony Orchestra (ASO) to explore how broader shifts in institutional logics, from aesthetic to market, shape

the discourse of critics and their judgments of performances. Another study by Ready and Hinnings (2009) has argued that competing institutional logics have influenced individual level actors to collaborate and act together to resolve conflicting competing institutional logics. Yet relatively little is known about how and why actors construct a role identity in response to a situation involving co-existing competing logics (Creed et al., 2010; Lok, 2010).

Another stream of research examines solely the behavior of shifting from one field to the other. In the study conducted by Barron and West (2005), they investigated what kind of individual characteristic factors are associated with qualified nurses in Britain moving to different employment status, including jobs outside nursing, unemployment, maternity leave and family care over time.

In this dissertation, I argue that both identity formation and behavior of actors are influenced by macro level institutional logics. In addition, certain identity formed by competing logics could influence the behavior of actors to leave the existing field in the form of identity spreading goal-oriented behavior (Beckwith, 1995; Bernstein, 1997). As discussed in Bernstein (1997), identity can be used as a tool for mobilization.

In the first part of this dissertation, I examine the connection between competing logics and identity formation through content analysis. This part addresses how logics can shape identity construction among actors in periods of co-existing competing institutional logics, and explore how these constructive identity processes can possibly lead to the management of competing and conflicting situations among actors. In order to address the above, this dissertation is structured to explore what kind of institutional logics exist and carefully analyze relations between two institutional logics, as this will be presented as results in the first three

parts of Chapter IV. This part is considered vital since explicating the relationship of institutional logics to be whether competing or not results in different identity formation. The fourth part of Chapter IV shows how the identity has been formed in response to institutional logics.

The second part of this dissertation, which is presented in the last part of Chapter IV, examines whether actors with powerful or structural hole positions are likely to show the behavior of shift in response to institutional logics and to reach a goal of forming certain identity.

I investigated a situation in the U.S. animation film industry where two competing logics co-existed for a lengthy period, producing a role identity forming process in response to these competing logics. In 1995, the animation film industry adopted an emergent 3D (CGI; Computer Generated Imagery) technology and introduced a new logic of digital impressionism in filmmaking. The principles associated with the logic of digital impressionism were experience-oriented as a means to create more entertaining content for audiences (visually richer and more exciting); high cost and high risk oriented; commercial craze; technological technique oriented expressions; and substantially fewer years needed for skilled software animators to master their craft. The key actors in 3D (CGI) animation filmmaking were the director; the producer; the animator; and the editor.

The introduction of the new 3D (CGI) technology was a direct challenge to the previously dominant logic of traditional animation known as fundamentalism. The logic of fundamentalism is described as emphasizing on storytelling manuscript, focusing on artistic quality, “art for art’s sake” (Bourdieu, 1993), and valuing skilled animators whose quality of hand drawings resulted from a lifetime of training. The two competing logics of fundamentalism (2D logic) and digital impressionism (3D

logic) were competing since each was associated with different organizing principles, and each required a different set of behaviors from actors within the field.

2D actors did not agree to the logic of digital impressionism emerging from technological advances and believed that technology could not be a panacea. They viewed animation as an artistic profession. Since the emergence of the first 3D (CGI) animation film in 1995, over fifteen years ago, 2D animations continue to be produced. The two competing logics continue to co-exist, and neither one can be considered dominant. Through a content analysis method through the medium of newspapers (Jacobs, 1996), I analyze how the role identities of 2D and 3D animators were reconstructed, in response to two competing logics of societal level co-existing in the period 1991-2008.

This dissertation provides a comprehensive understanding of how competing logics reshape the identities of key actors of those logics. I found that 2D animators, proponents of fundamentalism logic, and 3D animators, proponents of digital impressionism logic, reconstructed their role identity in response to competing logics, enabling competing logics to be managed and their identities to remain separate. These findings make a contribution to preexisting literatures on institutional logic, role identity, and institutional theory. One of the distinctive contributions of this dissertation is that it questions the assumption of previous literature that identity is an equilibrium state where identities are the final outcome, and that identity does not change in response to societal level change or pressures. Another contribution of this dissertation is to question the assumption in previous literature that, when challenging logics were introduced to a field, actors with incumbent logic revealed characteristics of “embedded agency” among powerful actors (Garud, Hardy, & Maguire, 2007; Garud & Karnoe, 2003; Greenwood & Suddaby, 2006; Seo & Creed, 2002). The

findings of this dissertation have revealed some unique results.

In the next section, Chapter II, literature reviews are presented. Chapter III describes the methods used in this dissertation. Chapter IV presents results and findings and lastly, Chapter V covers discussion and conclusion of this dissertation.

Chapter II: Literature Review

2.1 Research Question

The research question of this study is how competing logics shape role identity and its association with behavioral perspective of actors, in the context of the U.S. animation film industry.

2.2 Literature Review

2.2.1 Institutional Logic, Institutional Change, and Competing Institutional Logics

As belief systems and related practices predominate in an organizational field, an institutional logic provides the field with a cognitive structure, organizing principles, and behavioral guidance (Scott, 2001; Thornton, 2004). Thus, the concept of institutional logic plays a significant role in providing rationales for relations among actors within an organizational field. Since organization fields are structured by dominant logics (Thornton & Ocasio, 1999), understanding the mechanism of institutional change through institutional logic is important. A change in the field's dominant logic is the basis for concepts of institutional change. When institutional change is driven by exogenous or endogenous shocks (Mahoney & Thelen, 2010; North, 1990; Pfeffer & Salancik, 1978), the incumbent logic is replaced by a new challenging logic or multiple institutional logics, or the incumbent logic and the new challenging logic continue to maintain their positions by competing against each other in the single field. Prior research on institutional change explored the mechanisms of how an incumbent logic was replaced by a new challenging logic and became dominant through the concepts of power play, social identity movement, and agency (Hensmans, 2003; Kitchener, 2002; Mahoney & Thelen, 2010; Rao et al., 2003; Scott,

2001). Subsequent research on institutionalism has paid more attention to the process of resistance to change that aggrieved actors used to oppose institutional change and protect established routine (Davis, McAdam, Scott, & Zald, 2005; Wade, Swaminathan, & Saxon, 1998). Denrell and March (2001) argued that aversion to risk and resistance to change are reproductions of past successes that lead to a bias against alternatives that appear to be worse than they actually are. Also, Desai (2008) suggested that when performance is below an aspiration level, operating experimentation level, or legitimacy level, older firms tend to be risk averse. As argued by Oliver (1991), the phenomenon of resistance to institutional change arises in response to institutional pressure in terms of social network relations and environment dynamism; therefore, more research is necessary in this area.

According to a study by Abbott (1988), inter-professional conflicts play a role in resistance to institutional change. Recent research has examined how social organization and fields are shaped by jurisdictional struggles (Fligstein, 1996; Fligstein, 2001; Haveman & Rao, 1997; Scott, Ruef, & Caronna, 2000; Thornton & Ocasio, 1999). For example, a study by Ocasio (1999) explains how a shift from a professional to a market logic led to corollary changes in corporate governance practices in the publishing industry, and a well-known study by Rao (2003) on French gastronomy explains how the nouvelle cuisine movement in France led elite chefs to abandon classical cuisine and move to nouvelle cuisine. Rao (2003) contributed to previous literature by exploring the phenomenon of institutional change as a role identity shift and depicting how the incumbent logic was replaced by the challenging logic through the active participation of the actors.

A focus on competition between alternative institutional logics has guided research on institutional change. This diverse literature encompasses a wide variety of

mechanisms to explain the effect of competing logics on change, including environmental selection pressure, political contestation, and social movements. I emphasize that competing logics are not by themselves an explanation for change in institutional logics, but an antecedent or a consequence. Moreover, competing logics can facilitate resistance to institutional change, as shown in the contest between the global corporate and local professional banking (Marquis & Lounsbury, 2007). The causal mechanisms for institutional change reside not in competition per se, but in a combination of the effects of market selection pressure, the power of an institutional actor, and changes in the relative prevalence of societal-level institutional logics, which are typically unspecified in many studies.

The research of competing institutional logics has thus far focused either on strategies of action at an individual actor level of analysis (Lok, 2010; Reay & Hinings, 2005, 2009), or analysis of a higher level institutional logic at the societal level (Haveman & Rao, 1997; Meyer & Hammerschmid, 2006). Even though the concept of institutional logics connects micro-level values and beliefs with action at all levels of the institution, most studies failed to incorporate both micro-level actors and macro-level logic. Researchers showed that micro-level actors from a challenging group drove institutional change and challenged the status quo by bringing with them a new institutional logic (Hensmans, 2003; Hoffman, 1999; Leblebici, Salancik, Copay, & King, 1991) or establishing field actors who discovered new ways of organizing (Greenwood & Suddaby, 2006; Kitchener, 2002). As discussed above, previous studies independently examined the phenomenon of competing logics at macro-level and behaviors of micro-level actors but paid little attention to the link between the logic at macro-level and the behavior or reactions of micro-level actors.

In contrast, studies of micro-level actors noted less explicit ways of managing

rival logics (Maguire, Hardy, & Lawrence, 2004; Reay, Golden-Biddle, & Germann, 2006). These studies showed how actors supporting a non-dominant logic held neither authority nor positions of high status that would enable them to openly challenge the dominant logic (Battilana, 2006). They relied on their detailed knowledge of the context to develop change strategies and achieve incremental advances toward an overall goal. Institutional change was driven by individual agency that resulted in new logics. Since rivalry between competing logics was handled clandestinely, this change strategy was a huge success because the change in institutional logic was not detected by powerful actors until it was too late to stop. These studies highlighted the possibility of a slowly emerging dominant logic and signaled the importance of a transition period. Previous research has also shown that rivalry between logics is sometimes managed secretly when change initiatives press down on the old logic (Livengood & Reger, 2010). That is, rivalry between logics seemed to be resolved by the creation and recognition of a new dominant logic, but closer assessment shows that the old logic continues to exist and guide behavior in less obvious ways. Research by Townley (2002) showed instances of change in the dominant logic in which individuals appeared to accept the new logic even though they continued to follow the old logic. Other research by Khan et al. (2007) supports this hypothesis by demonstrating that even though a manufacturing logic was introduced, competing family and societal logics resulted in hidden activities supporting the older logics. These studies demonstrate the importance of understanding both the interpretation of micro-level actors and the meaning of competing logics.

Many researchers have studied competing logics in professional and occupational domains in the field of finance, health care, accounting and the culinary arts. Comparing and contrasting studies across professional and occupational context

has revealed that a strong potential for coexistence exists in competing institutional logics of the inter-institutional system. Research by Scott et al. (2000) has produced a historical account of the Bay Area health care system by describing institutional change from a setting once dominated by the institutional logics of the medical professions to one greatly influenced by the logics of the state, the corporation, and the market. This study describes how the logics of the state in terms of new regulatory systems disempowered those of the professions. In particular the more powerful and higher priced M.Ds saw their power reduced through the creation of a new field for managers of corporate logics in the form of managed care and new organizational forms, including Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs) and surgi-centers, which have become commonplace in the health care system.

Research by Meyer and Hammerschmid (2006) investigates how an old administrative orientation is being replaced with a new managerial logic in the Austrian public sector. This study traced institutional change by observing how state bureaucrats make use of social identities that are derived from competing institutional logics, and revealing evidence of the formation of a new managerial identity created by individuals who mixed a new orientation with more orthodox beliefs about public administration.

The social movement perspective has also played a role in research on competing logics. Rao, Monin, and Durand (2003) showed how social identity movements strengthen reinstitutionalization in the culinary profession by contrasting the institutional logics of the classic and nouvelle cuisine movements. Changes in logic and changes in the adherence to a logic take place through four mechanisms: the sociopolitical legitimacy of food critics as activists, the theorization of new roles,

prior defections by peers and gains to peers, and gains to defectors as identity-discrepant cues. In essence, institutional logics and professions undergo change when activists gain control of professional societies, review the traditional logic, and offer a solution hinging on a new institutional logic.

Few studies have paid attention to the power mechanisms of competing logics among proponents of alternative logics. Research by Reay and Hinings (2005) focused on the recomposition of an organizational field in which competing institutional logics of medical professionalism versus business-like health care were driving a radical change process. They conceptualized the organizational field as a battlefield where power struggles motivated by competing institutional logics were played out. The structure of the field and the dominant institutional logic may have changed, but the previously dominant logic of medical professionalism was only subdued rather than eliminated. The power was eventually distributed between two powerful actors, the physicians and the government, creating a countervailing or stabilizing tension.

2.2.2 Identity Formation in Institutional Competing Logics

Some of the conceptual foundations concerning identity formation originate in the literature on identity development (Erikson, 1959). According to Markus and Wurf (1987), they explained identity formation in the term of “dynamic self”. Also, Markus and Nuriusu (1986) described actors as performing “possible selves” as a way of changing identities. In addition to the above studies, Pratt, Rockmann and Kaufmann (Pratt, Rockmann, & Kaufmann, 2006) have found a number of processes whereby resident physicians’ role identities changed over time. These studies revealed that role identity can change and also, that this process of identity change involved evaluating the possibility for becoming a “revised self” (Clark, Gioia, Ketchen, &

Thomas, 2010; Livengood & Reger, 2010).

Institutional competing logics have often been recognized theoretically as a key driver in explaining endogenous agents in institutional change literatures (Marquis & Lounsbury, 2007). To understand institutional changes in forms and practices, a closer understanding of institutional logic (Friedland & Alford, 1991) is essential. Institutional logics provide structure and frames to guide action for those who belong to them. Furthermore, institutional logics compose social categories and role identities among actors that are accepted and circulated within the norm that has shaped them (Berger & Luckmann, 1966). The emergence of a new institutional logic in the field establishes a new style of management and new role identities for actors to follow, defining this line of process as “identity responses” (Creed et al., 2010; du Gay, 1996; Llewellyn, 2004; Meyer & Hammerschmid, 2006; Reay & Hinings, 2005; Thomas, 2005). Through the introduction of new beliefs, ideologies, actors, roles, and categorizations, institutions require role identity responses among actors and constructions of new identities especially for key actor groups in new orientations (Rao et al., 2003; Sahlin-Andersson, 1996). Not only do institutions provide legitimate standard terms for actors, but also format based on their logic, so that actors can use the terminologies for their role identity, claims, and justifications for their actions (Greenwood & Suddaby, 2006; Lok, 2010; Meyer & Hammerschmid, 2006). Previous research has shown that the emergence of a new institutional logic resulted not only in shifts in role identity but often precede changes in actual practices and forms (Rao et al., 2003; Sahlin-Andersson, 1996).

Theories of social identity, developed by Tajfel (1981), Turner (1987) , and others, defined identity as a placement in social space where the person is positioned relative to others through the struggle of power and dependencies among actors who

belong to different social categories. According to Meyer and Hammerschmid (2006), they depict identity as relatively variable social construct and describe identity as changeable construct in response to the logics that shape them. Since different institutional logics holds different beliefs, legitimate standard of actions to follow for actors, and even social identities, I expect that incumbent logics may be challenged or may create conflicts to justify dominance of incumbent logics in the field (Meyer and Hammerschmid 2006).

Institutional theorists have recently recognized the importance of collective level identities, such as role identities, as a mechanism to deal with competing logics as a form of micro-processes (Creed et al., 2010; Reay & Hinings, 2009). When rivalry between institutional logics is presented, actors who support those logics are likely to be influenced in some way. Previous studies have shown relationships between institutional logic and identity: that actors resisted fixed identities in shifts of institutional logics (Marquis & Lounsbury, 2007; Townley, 1997) and formed 'mixed' or 'hybrid' identities under the existence of multiple logics (Meyer & Hammerschmid, 2006). Since each institutional logic is represented by actors with particular roles, those with roles tend to form collective identities. The common conclusion of micro and macro process lines of literatures shows that different sets of phenomena exist at the societal level and at the micro-level, but that logics shape micro-processes. For example, Ready and Hinning (Reay & Hinings, 2009) explained that contradictory logics were forming at the societal level while micro-processes were in continuum at the actor level, and that these micro-processes were the key to resolving contradictions. This dissertation explicitly shows that logics exert their effect on individual level actors in terms of their actions, beliefs, and role identities.

Early identity literature has discussed how identify formation occurred in

relation to social movements. The research question of these research streams was how religious identities formed at the individual level link to the social movement at the macro level. Understanding the process of how religious identities are formed is considered essential for interpreting the link between religious movements and religious identities (Stark, 2009). Smith et al. (1998) emphasized the emergence of the evangelical identity as a collective action. He argued that the evangelical movement was enabled at the macro level. Smith viewed identity through the theory of “competitive marketing” developed by Finke, Stark, and Ianconne (1988, 1992; Stark & Iannaccone, 1994), which noted how religious entrepreneurs market religious goods in the field. These religious identities can be recognized through identity products created and marketed to the religious public by religious movements and élites (Stark, 2009).

According to the political science literature, identity reformation arises within political movements as responses to opposing political parties (McNall, 1988; Przeworski & Sprague, 1986; Redding, 1992; Stark, 2009). Redding (1992) explored the Farmers’ Movement in pre-1900 North Carolina. He noted that identities were formed through interactions with the Alliance movement, and that local organizations were crucial for mobilization because they provided events such as forums for developing identities. On the other hand, the People’s Party relied on large-scale rallies to focus on political interests rather than farmer solidarity.

Building on these contributions, I argue that identities are socially constructed, adjusted, modified and negotiated phenomena rather than end states (Meyerson & Scully, 1995), especially when multiple institutional logics or competing institutional logic may marginalize role identities (Alvesson & Willmott, 2002; Creed et al., 2010; Dejorjy, 2008). I suggest that competing logics cause actors to construct self-

presentations in certain ways. In response to competing logics, identity reformation as a process rather than an end state (Creed et al., 2010) should be emphasized, as identity is an important source of resistance to change (Meyer & Hammerschmid, 2006; Townley, 1997). In resistance to change literature (Marquis & Lounsbury, 2007), when the autonomy of identity is threatened due to the rivalry of competing logics, actors associated with those role identities reconstruct their identity to the degree required to protect their identity against others. Some literatures portray collective role identity response as a strategy, especially as a goal for resource mobilization or particular action among actors (Bernstein, 1997). Beckwith (1997) also supports this argument by stating that actors can form and use their identity to gain political standing in a social movement. I argue that understanding the identity formation of actors who hold certain role identities as strategic responses will lead to more comprehensive understandings of responses to competing institutional logics.

2.2.3 Movement as a Tool to Disseminate Identity as a Goal

Previous identity movement literature (Rao et al., 2003) posited that identity discrepancy cues caused actors to make shifts. Identity discrepancy cues depicted in their literature included the sociopolitical legitimacy of activists, the theorization of new roles, the defections of peers, gains that accrued to defecting peers, and how central in the success of movement. According to the research, identity movement occurs when activists construct institutional gaps by showing how the existing logic cannot be an effective guide for action. In addition, identities compete for behavior expression in that order (Stryker, 1994).

According to self-categorization theory, actors preserve their positive social identity by positively stereotyping their group and negatively stereotyping others.

When their identity is jeopardized or threatened, actors respond to this threat to their social identity by using three basic strategies: social mobility, social creativity, and social change (Rao, Davis, & Ward, 2000; Tajfel & Turner, 1985). Social mobility is defined as an actor's ability to exit the in-group and join another group. Social creativity is explained as events in which actors opt to change their criteria for comparison, so that the in-group is seen more favorably. Social change is described as events in which actors attempt to compete directly with the out-group to alter the relative status of both groups. The most prevailing strategy for reaching positive social identity is social mobility. Social creativity and social change strategies occur only when individuals find it impossible to exit from membership (Taylor & McKirnan, 1984; van Knippenberg, 1984).

In addition to self-categorization theory which is used to explain social mobilization as response to threats in accordance with identity threat literature (Breakwell, 1986), a variety of situations such as unemployment, cultural conflict, and the emergence of new logics can pose threats to identity, especially when competition due to the emergence of a new institutional logic causes power struggles between identities. Research on institutional change has explored the mechanisms of the replacement of how an incumbent logic and role identity are replaced by a new challenging logic and role identity, becoming dominant through the concepts of power play, social identity movement, and agency (Hensmans, 2003; Kitchener, 2002; Mahoney & Thelen, 2010; Rao et al., 2003; Scott, 2001). Institutionalism research has paid more attention to the process of resistance to change in which aggrieved actors formed identities and acted against institutional change to protect established routines (Davis et al., 2005; Wade et al., 1998). According to the study by Abbott (1988), inter-professional identity conflicts play a role in resistance to institutional change. Other

research has examined how social organization and fields are shaped by jurisdictional struggles (Fligstein, 1996; Fligstein, 2001; Haveman & Rao, 1997; Scott et al., 2000; Thornton & Ocasio, 1999). As previous studies paid attention to ‘passive action’ towards the emergence of a new logic and the subsequent identity threat by exploring how actors collectively acted to resist change, a whole new active identity response approach has been suggested.

Hersey and Blanchard (1988), proponents of goal-oriented behavior theory, argued that behavior is basically goal oriented. They claimed that every action is generally motivated by desire to attain some goal. Understanding identity as a tool for mobilizing a goal led to a better understanding of social movement and rationales for actors in a field (Beckwith, 1995; Bernstein, 1997). Bernstein (1997) claimed that there were three analytic dimensions of identity as tools for mobilization: identity for empowerment; identity as a goal; and identity as a strategy. Identity for empowerment was defined as acts that drew upon an existing identity or constructed a new collective identity in order to create and mobilize a constituency. Identity as strategy was defined as the strategic employment of identities which may be a form of collective action. Lastly, identity as a goal was depicted as acts which may challenge stigmatized identities, seek recognition for a new identity, or deconstruct restrictive social categories as goals for collective action.

In this dissertation, I focused on ‘identity as a goal’ as the main reason why actors make shifts or mobilize in response to an identity threat. In an on-going competition between two logics over 10 years, actors aimed to represent their own identities to competitors in a struggle to dominate the field (Kitchener 2002). Disseminating one’s identity became a goal achieved by actors through mobilization. Previous research supports this view. For example, New Left organizations of the

1960s thought that the creation of alternative culture forms could foster structural change. The Student Nonviolent Coordinating Committee (SNCC) defined their goal and mission as the mobilization of the secure recognition for a new collective identity – poor, ‘unqualified’ southern blacks – in a way that would transform national and local politics by adjusting criteria of political leadership (Polletta, 1994). Another study on feminism by Gamson (1995) depicted the feminist influence on American culture through challenging and altering the conventional usage of sexist terms in the English language. Gamson (1995) suggested the close examination of goals of contemporary “queer politics” to deconstruct social categories such as man and woman, gay and straight. Social movement theory cannot sufficiently explicate strategy choices made by actors, such as social movement or resource mobilization, without acknowledging their desire to reach certain goals in collective action and the relationship of strategy choices to the structural location of the actors.

In the case of 2D animators, they attempted to spread their identity to 3D animators through 2D animators who worked in 3D animation as a goal, since that was only way that 2D animators could maintain their dominant identity in their field against competing institutional logics (Strang and Meyer, 1993). As shown in the content analysis results, 3D animators appreciated the skills of 2D animators, explicitly and continuously supporting work of 2D animators in the later years of the period of study. This could be seen as evidence of a goal-reaching behavior of 2D animators who worked for 3D animation films.

2.2.4 Social Network Positions and Identity Dissemination as a Goal-Oriented Behavior: What kind of 2D animators are more likely to participate in the shift to 3D animation films in roles as 2D animators?

In order to understand an organization and act within it, actors must learn its

policies and logistics, the general role expectations and behavioral norms, and the power and status structures (Ashforth, 1985). To accomplish the goal of disseminating identity through mobilization, actors with the social network position of incumbents are likely to participate in movement. There are two theoretical views associated with the actions of a powerful actor in the field. First, an institutional theory view is grounded in the idea that institutional environments are created through established rules, norms and beliefs that formulate a socially constructed reality for organization (Hoffman, 1999; Meyer & Rowan, 1977; Scott, 1995). As these rules and norms become routine, the institutional field matures and develops to a point where the interactions between actors are clearly defined and a hierarchical structure begins to emerge, (DiMaggio & Powell, 1983; Giddens, 1984) as is seen in many professional fields today. This hierarchical form has been illustrated as a stratification of the field into central and peripheral actors (Shils, 1975). According to this view, powerful actors are those who are embedded high in the institutional field, who follow and promote the rules and norms within the field, and, as powerful actors, who receive direct benefit from those rules and norms (Greenwood & Suddaby, 2006). Powerful actors may actually have the ability or power to make changes, but because they stand to benefit from the current situation, they have no reason to initiate any changes or cross borders; on the other hand, peripheral actors may want to change current institutional arrangements, but do not have the power to do so (Garud et al., 2007).

Another theoretical view is agency theory, which posits that actors strive to be knowledgeable agents who have the ability to seek and formulate entrepreneurial opportunities, acknowledge their goals, and realize mission and responsibility as required in their position (Garud & Karnoe, 2003). Institutions therefore do not completely constrain the ability to change or move to a different logic. In line with

this view, social movement scholars argue that powerful actors are in advanced competitive positions to gain access to opportunities from external environments, and they have access to more resources to influence others and to form social movements. Supporting this argument, Galaskeiwicz (1991) stated that changes have been initiated by structurally well-placed inter-organizational field leaders who acted as change agents by consciously introducing new practices and disseminating information (West, Barron, Dowsett, & Newton, 1999) as goal-oriented behavior. In periods of co-existing and competing logics, dominant and powerful actors in the incumbent group are more goal oriented, having more obligations to disseminate their identity toward challenging groups. Therefore, I argue that powerful 2D animators are more likely to make a shift to disseminate their own identity.

Thus, I arrived at the following hypothesis:

Hypothesis 1: The more powerful the 2D animator, the more likely to participate in symbiotic identity movement, that is, to work in 3D animation films as a 2D animator.

Structural Hole Position

The determination of 2D animators to disseminate identity as a goal was unavoidable as the struggle between identities, and two competing logics, persisted in the animation film industry. As discussed above, social influence may be required to spread identities through attitudes and behavior, in addition to exposure to new beliefs. An individual or group may be influential because they have power over others, or because they set a standard against which others judge their own behavior. The sources of power are diverse. Control over information is one source. Burt (2004) introduced this concept of structural holes which have the advantage of allowing ego to mediate and control the flow of information to others.

Previous research posits concepts of structural holes, weak ties, group solidarity and social comparison, and power analyses suggests that structural features are strongly associated with the informational and influential capacity of networks (West et al., 1999). In that literature, actor information centrality was used as a term appropriate for my concern with information flow through a network. An actor is recognized as central if they are on the pathway between many other actors while there are few other actors functioning as intermediaries in the network (West et al., 1999). Galaskeiwicz (1991) stated that changes have been initiated by structurally well-placed inter-organizational field leaders such as those placing themselves as influential intermediary positions in this case who acted as change agents by consciously introducing new practices and disseminating information as goal oriented behavior.

As discussed above, actors with a high information centrality position are best suited for spreading their identity and being influential. Identity dissemination is considered as information in this context, and therefore, it is more likely to cause a shift by setting their goal as to spread their identity.

Hypothesis 2: The higher the structural hole measure of 2D animators, the more likely it is for 2D animators to participate in a symbiotic identity movement, that is, to work in 3D animation films as a 2D animator.

Chapter III: Methodology

In the previous chapter, the relationship between competing logic and role identity formation has been discussed and it has been hypothesized that social network structural positions are related to formation of symbiotic identity. In this chapter, I describe the research methods used to collect data, and test the hypotheses. Since this research contains both qualitative and quantitative study, this chapter illustrates two separate sections of data collection process and analysis method: one describes qualitative study and the other explains quantitative study.

3.1 Data Collection and Analysis of Qualitative Study on Competing Logics and Identity Formation

I studied the emergence of a new institutional logic in the U.S animation film industry from 1991-2008. I conceptualized the organizational field as consisting of creators (production company, producer, director, 2D animator, 3D (CGI) animator, editor), distributors (distribution companies and licensing companies), consumers, and journalists (Dimaggio & Powell, 1983). Key actors within the field are known to interact with each other (Scott, 1994). Here, I focus only on the particular role of actors: 2D animators and 3D (CGI) animators for their identity.

To gain an overall perspective, on what is going on in this industry, I performed semi-structured interviews with 2D animators and 3D animators. The interviews were mostly done by phone or email. The interviews, which lasted between one and two hours each, loosely followed an interview guide to ensure that certain topics were addressed and linked coherently, while at the same time letting the respondent take the lead (Taylor & Bogdan, 1984). All interviews were taped and transcribed into written format. To begin with, the interview guide contained a

number of general questions about change processes, production processes, and the role of actors. However, after a while, more locally grounded questions developed that dealt with themes such as how they perceive actions of both 2D and 3D animators, their feeling toward each other's role position in animation film, and the movement of 2D animators to 3D animation film. I also was particularly interested in the responses of the 3D animator and 2D animators that indicated a rationale for taking particular identity formation. I wanted to understand how the 3D animators and 2D animators reformed their role identity when in the ongoing presence of co-existing competing institutional logics. Since animators were hard to reach, I used the snowball sampling method to expand the number of interviewee animators. In total, twelve animators were interviewed: Eight 3D animators and four 2D animators. I ensured that animators who participated in my interview have worked during the critical years of 1991 and 2008. From interviewing 2D and 3D animators, I was able to gain general and detailed industry information, movement among animators and role identity formation of animators which lead to sensing initial themes for further content analysis.

My data incorporates two-levels of analysis. The first level of analysis covers the society-level which will explore institutional logics from 1991-2008. The second level of analysis covers micro-level actors and assesses role identity construction of 2D animators and 3D animators from 1991-2008. My newspaper article covers the time period from 1991 through 2008.

Primary sources were collected from the LexisNexis Academic Database. In the LexisNexis Database, I used the keyword search function to filter out animation film-related articles. The keyword 'animation films' was used to narrow the scope of articles. Among the list of newspapers in the database, I chose four major

newspaper sources: The New York Times, The Times of London, The Los Angeles Times, and The Washington Post, and three industry trade journals: Variety, Daily Variety, and The Hollywood Reporter. By selecting four major newspaper sources and three industry trade journals from the database, I was able to identify 244 articles for the period of 1991-2008. From these, I found logic contents totaling 140 statements: 76 statements for 2D logic and 64 statements for 3D logic. For identity contents, I found 109 statements: 64 2D animator identification statements and 45 3D animator identification statements. Newspaper articles response to external events which enable to see change of actor's identity in response to logics (Jacobs, 1996). The newspaper articles provided an outsider, reporter-based view of events and also, most importantly, revealed role identity (Glynn & Lounsbury, 2005). These articles included quotations and reactions from individuals speaking on behalf of key actors, providing valuable information to attempt to identify and understand institutional logics and how they shaped the identities of key actors. I systematically analyzed documents to determine the action statements of key actors over time. In particular, I wanted to understand how actors' actions or statements reflected the logic of 2D (Fundamentalism) and 3D (Digital Impressionism). Based on the content of these documents, I categorized the data by actor over time, tracking events as they occurred (Burgoyne, 1994; Hodder, 2000). This allowed me to gain an understanding of how actors took the initiative or responded to the actions of others over time (Pettigrew, 1990).

I used MS Access as a tool to assist with the coding process. Each newspaper was analyzed line by line with two parts. The unit of analysis was a statement that contained information about logic, identity, or practices. To extract 2D or 3D film logic data from newspaper data, I coded the actor (2D animator, 3D animator, Director, Editor, Producer), the related action, and tone, coded as supportive, neutral, or

negative (Lok, 2010). The second part of coding entailed the role identity of actors. I followed Alvesson and Willmott (2002) and Lok (2010)'s coding schemes on identity to extract role identity data. The identity was coded based on who was the identifier (2D animator or 3D animator), how each 2D animator and 3D animator identified their own roles and whether context was identified a) directly; b) indirectly; or, c) describing practice or rules. I systematically reviewed newspaper articles to identify statements made either by the 3D animators or the 2D animators that indicated actions (or proposed actions) and the rationales. All such statements were recorded in tabular form, chronologically, and sorted by both actor and logic. I developed categories and codes for other ways in which 2D animators and 3D animators reported their actions. For the logic contents, 12 dimensions were distinguished, and for identity contents, sixteen identity themes were distinguished. Inter-rater reliability (Fleiss, 1981) was tested by hiring a graduate student. The graduate student coded on both logics and identities contents of the first 120 newspaper articles in the database independently and it was compared to my coding result to calculate the Kappa score. I used STATA to calculate the Kappa score. The results of the inter-rater analysis as shown in Table 1 were $\text{Kappa} = 0.94$ with $p < 0.000$. This measure of agreement is statistically significant and also very convincing. As a rule of thumb values of Kappa from 0.40 to 0.59 are considered moderate, 0.60 to 0.79 substantial, and 0.80 outstanding (Lindis & Koch, 1977).

Table 1. Inter-rater analysis

Agreement	Expected Agreement	Kappa	Std. Err.	Z	Prob>Z
95.20%	11.68%	0.9457	29.83	0.0317	0.0000

3.2 Data Collection and Statistical Analysis of Quantitative Study on Involvement in Symbiotic Identity Formation

3.2.1 Data Collection

To test my hypothesis on whether actors of powerful or structural hole positions participate in symbiotic identity formation, it was necessary to obtain measures of powerfulness and structural hole. I was able to obtain this measure through network analysis data. To obtain data at the network level, I collected data of animation films shown in U.S. theatres from 1991-2008. This dataset included the data structure of films by name of actors involved in producing the film and the role (producers, directors, animators, editors) they were in charge of. Data on this population were gathered from the Internet Movie Database (IMDb). By manipulating this database, I was able to calculate not only the network measures but I was also able to obtain information on movement of role position from 2D to 3D animation among animators.

In the animation industry, there are two types of animators who have made the shift from 2D animation to 3D (CGI) animation as shown in Table 2. The first type includes 2D animators who changed to 3D animation, resulting in a role change. The second type includes 2D animators who decided to work for 3D animation films as 2D animators as an identity goal (Bernstein, 1997), although many reasons for this switch could exist, such as the desire to reach new markets with the outstanding performance of 3D (CGI) animation films, and better working conditions (Rao, 2003). Using IMDB, I was able to calculate how many people shifted from 2D animation to 3D animation. Only 435 2D animators made a role conversion to work as 3D (CGI) animators. Approximately 2,483 2D animators made a shift to 3D animation to work as 2D animators. This information became bases for building my dependent and independent variables.

Table 2. Number of animators who shifted across 2D and 3D (IMDb, 1995-2008)

	2D animators who changed to 3D animator	2D animators who shift to work for 3D animation as 2D animator	2D animator who remain as 2D animation
1995	6	61	1181
1996	0	0	1175
1997	0	0	1429
1998	6	119	1729
1999	2	111	1226
2000	0	0	1487
2001	10	197	1745
2002	6	66	2056
2003	4	77	1559
2004	58	244	947
2005	38	242	571
2006	77	465	2154
2007	96	348	1613
2008	132	553	178
Total	435	2483	19050

3.2.2 Measures

Dependent variable.- The dependent variable for this study was defined in terms of whether the 2D animators made the shift to work as 2D animators in 3D animation films or not. Those 2D animators who made the shift to 3D animation to work as 2D animators were coded as “1”, and those who didn’t make this shift were coded as “0”.

Independent variables.-To test hypothesis 1, a social network measure determined the power of a person in their network. Their power was calculated using a social network measure of Bonacich power centrality (Bonacich, 1987) using social network software UCINET. Bonacich (1987) argued that one's centrality is a function of how many connections one has, and how many connections the actors in that

neighborhood has. Bonacich centrality is a measure related to how influential a person can be in spreading identity, since it is a combined measure of degree centrality, or ‘one message to all’, and dependency, or how others’ connections make them less or more dependent on you. In order to calculate the Bonacich power centrality of 2D animators, I computed Bonacich power centrality annually and accumulated five years of Bonacich power centrality as the variable. This variable was lagged by five years.

To test the hypothesis 2, the social network measure known as Freeman’s Betweenness Centrality (Freeman, 1977) was used to test whether those who were in a position to perform brokerage role were more likely to shift. I computed betweenness centrality annually and accumulated five years of betweenness centrality as the variable. This variable was lagged by five years.

Control variables.-I controlled for period effect. The period is divided into early period and late period. I created a dummy variable for the late period effect. The early period is defined as the period when 3D animation films were just introduced to the field which is from 1991 to 2000 and treated as reference category. The late period is defined as from 2001 to 2008 and this late period is the period when 3D animation prospered. Revenues of 3D animation films soared from \$200 billion in 2001 to \$700 billion by 2008. (IMDB). This variable was lagged by five years.

Market Control Variables.-To test whether actors’ shifts could be attributed to market factors (Rao et al., 2003) such as opportunities in a new market, data on market factors were collected. As a first market control factor which tested whether a 3D animation film release can motivate actors to shift, market data on releases of 3D animation film per year were standardized by dividing releases of 3D animation film by the number of total numbers of animation film produced for each year. I was able

to obtain this data from Internet Movie Database (IMDb). As a second market control factor for testing whether higher wages offered by 3D animation production companies affected actors to shift as a factor, I gathered data on the average wage of 2D animators who worked in 2D animation and 3D animation annually from the member wage survey published by The Animation Guild (Local 839 of the International Alliance of Theatrical and Stage Employees (IATSE) organization). As a second market control factor which tested whether actors made the shift because the wage of a 2D animator who works in 3D animation film was higher than the wage of a 2D animator who works in 2D animation film, I computed this wage variable as a ratio through dividing the median wage of a 2D animator who works in a 3D animation film by the median wage of a 2D animator who works in a 2D animation film. Lastly, revenue growth of 3D animation film compared to the previous year was incorporated as a market control factor. The revenue of 3D animation films was first standardized by dividing the 3D animation revenue in a single year by the total revenue of animation films produced in that same year. The revenue growth variable was calculated by subtracting previous year's revenue from the current year's revenue and then dividing it by the previous year's revenue. This data was available from 1991-2008 and was obtained from the Internet Movie Database (IMDb). All of these variables to be included in the data were lagged by five years. All of my control variables were also lagged five years, since the production preparation time was usually three to four years, so actors made their decisions by referencing figures from five years prior.

3.2.3 Statistical Analysis

In this study, binary logistic regression (Al-Ghamdi, 2002; Hosmer &

Lemeshow, 1989) was applied to data collected in order to examine the contribution of certain network conditions to the likelihood of a shift. Because of the binary nature of the dependent variable, I coded 2D animators who did not make shift to 3D animation as “0” and 2D animators who made shift to 3D animation as 2D animators as “1”; logistic regression was suitable. In the management field, logistic regression has been used in institutional change literatures as forming their dependent variable, with “0” for no change, and “1” for a change.

After I confirmed the fit of the model, the process of assessment of the model began. The validity of the model in this study was tested by examining the statistic level of significance for its coefficient and the Wald statistic. Also, the Hosmer-Lemeshow (1989) test was used to test goodness of fit of the model to data.

Table 3 displays the correlations among the variables used to test the hypotheses. Table 3 also demonstrates some high correlations between the late period and 3D animation film release. Also, there seemed to be a strong correlation between the 3D animation film released and wage difference, and between 3D animation film released and revenue growth of 3D animation film. Due to these high correlations, we conducted a test to see if collinearity was a problem. I used variance inflation factors to test for collinearity, as recommended by Belsley, Kuh, & Welsch (1980). They suggested that the mean variance inflation factors should not exceed 10. In the results shown in Table 4, the mean variation inflation factor was 2.01 and did not exceed 10 for any of the independent variables.

Table 3. Correlations

	1	2	3	4	5
1. H1_Powerfulness (Lagged 5 years)	...				
2. H2_Structural Hole (Lagged 5 years)	0.0911	...			
3. Control Variable: Late Period Effect (Lagged 5 years)	-0.0884	-0.0240	...		
4. Market Control Variable: 3D Animation Film Released (Lagged 5 years)	0.0308	-0.0162	0.6280	...	
5. Market Control Variable: Wage Difference in Ratio (Lagged 5 years)	0.0930	-0.0014	0.4281	0.6115	...
6. Market Control Variable: Revenue Growth of 3D Animation Film (Lagged 5 years)	0.0549	0.0012	0.2143	0.6896	0.3845

Table 4. Collinearity Diagnostics

Variable	VIF
H1_Powerfulness (Lagged 5 years)	1.04
H2_Structural Hole (Lagged 5 years)	1.01
Control Variable: Later Period Effect (Lagged 5 years)	1.99
Market Control Variable: 3D Animation Film Released (Lagged 5 years)	4.14
Market Control Variable: Wage Difference in Ratio (Lagged 5 years)	1.63
Market Control Variable: Revenue Growth of 3D Animation Film (Lagged 5 years)	2.25

Mean VIF	2.01
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Chapter IV: Findings

The previous chapter illustrated data collection and analyses methods. The first section of this chapter contains result from content analysis on competing logics and identity formation. The second section of this chapter illustrates the result of testing two hypotheses.

4.1 Findings from Content Analysis

4.1.1 (Fundamentalism) Institutional Logic in the U.S. Animation Industry from 1991-2008: Its Dimensions and Defining Characteristics

In analyzing institutional logic, Fischler (1989, 1993) and Rao (2003) identified dimensions as a tool to understand institutional logics. Using a content analysis method, fundamentalism (2D) logic was identified with 12 dimensions using 76 statements after reviewing newspaper articles from 1991 to 2008: style of practices (tools); skills; demands for animation; demands for animators; roots; recognition through award; quality; responses to one another as a competing mechanism; goals; market performance; value; and threat, as shown in Table 5.

The style of practices dimension in the fundamentalism (2D) logic was described as: praise for the hand-drawn style of animation, which required following a laborious frame by frame hand-drawing framework, the description of 2D animation as colorful, up-beat, and musical; a laborious drawing style still sustained by industry leaders; for example, it was said of a 2D animator praised for his hand-drawn style, “But no one has yet created a character on a computer that moves and acts as naturally as a hand-drawn character” (The New York Times, 1991).

On the skill dimension, fundamentalism (2D) logic describes the acquisition of animation skills as a life-long endeavor. The skills of 2D and 3D animators were compared as follows: “A 3D skill that can be mastered in a couple years' time, as

compared to the lifetime it took traditional animators to hone their craft” (Variety, 2004).

The demand for animation, in fundamentalism (2D) logic, was presented as the idea that there were still demands for 2D animation film with great stories rather than technology. This was stated by a 2D animator as "I actually think the appetite for traditional animation is greater these days” (Variety, 2000). Demands for animators, in fundamentalism (2D) logic, were described as a high demand for 2D animators with technical knowledge and an insufficient number of 2D animators in the market. A New York Times journalist wrote, “But talent remains a precious commodity, and the race by studios into film animation is already creating shortages of animators, whose salaries have soared by \$200 or more a week in the last year to an average of \$1,800 to \$2,200” (1994).

In the root dimension, 2D animation was described as a renaissance of the animation art field, with 2D animators providing foundations and advice to the animation industry overall, including 3D animation film. This root dimension was described as, “Both Mr. Lasseter and Mr. Bird had the opportunity to work in hand-drawn animation (probably doomed to be known as 2-D animation) and clearly profited from the experience”. (The New York Times, 2007)

In the recognition through awards dimension, there were statements made about the continuing dominance of 2D animation in the Academy Awards. Fundamentalism (2D) logic revealed an emphasis on a slower production process focusing on higher quality, less flexible, and less compatible work in the quality dimension. However, similar to the work of Renaissance artists and painters, eminent hand-drawn work provided natural, organizational, aesthetic uniqueness, and the highest quality of art. Traditional animation was considered an important form of

artistic expression that could be said to be equivalent to the work of Leonardo da Vinci, Michelangelo, and Rembrandt.

The goal dimension of 2D logic was said to be that 2D animators aimed for a longer showing period and that they planned for the longer term more than 3D animators did. In terms of the market performance dimension, 2D animations appeared to show poor performance in 2001, but were making profits through home video sales. The valued dimension specified that traditional ways of production were respected and that the storyline was core. Our last dimension mainly described the threat to 2D animation from the rise in labor costs and the emergence of the new 3D (CGI) technology. The Daily Variety said, “The wane in 2-D features can be traced back to the early 1990s, when the failure of a series of hand-drawn studio pics coincided with a rise in labor costs and major technology breakthroughs in CG” (2006).

Table 5. Institutional Logics of Fundamentalism from 1991-2008

Fundamentalism	
Dimensions	Defining Characteristics
Style of Practices (Tools)	<ul style="list-style-type: none"> • Praise of hand-drawn style of animation. • Described as laborious frame by frame hand-drawing work. • Described 2D animation as colorful and up-beat musical. • Laborious drawing style is still used by industry leaders.
Skills	<ul style="list-style-type: none"> • Skill of 2D animators are earned through life-time.
Demands for animation	<ul style="list-style-type: none"> • Still demand for 2D animation film with great stories rather than technology.
Demands for animators	<ul style="list-style-type: none"> • Insufficient number of 2D animators. • Layoff due to new technology caused tension between animators.
Roots	<ul style="list-style-type: none"> • 2D animation is described as the renaissance of animation art. • 2D animators provide foundation and advice to 3D animation film. • 2D animation technique is basic and core to all animations including 3D animation.

<p>Recognition through awards</p>	<ul style="list-style-type: none"> • 2D animation is still dominating in awards.
<p>Quality</p>	<ul style="list-style-type: none"> • Hand-drawn animations produce high quality film.
<p>Responds to each other as competing mechanism</p>	<ul style="list-style-type: none"> • Needs for less laborious hand-drawing works. • Criticism about novelty and root about 3D animation technique. • Effort to maintain 2D spirit among French artists. • Trying new things (techniques, coloring) to attract attention of audience. • Criticism about quality of 3D animation. • 2D animators stating that no domination in animation style (2D or 3D). Criticism about 3D animation (Art is people working). • Need for strengthened storyline emerged in order to compete with 3D animation film. • Statement by 2D animator that 2D animation has become a strong threat to 3D animation. • Improving quality through job cuts. • Success of 2D animation shows their survival against 3D

	<p>films.</p> <ul style="list-style-type: none"> • 3D animation is not special anymore. • Became alike. • Should be able to tell stories without fancy image looking character and action.
Goal	<ul style="list-style-type: none"> • Aim for longer showing period & plan for longer term.
Market performance	<ul style="list-style-type: none"> • Still making profit in the industry.
Valued	<ul style="list-style-type: none"> • Traditional way of producing is respected. • Storyline is core for animation styles.
Threat	<ul style="list-style-type: none"> • The wane of 2D is due to a rise in labor cost and the emergence of 3D animation.

The frequencies of each dimension are listed to understand institutional logic in detail. Table 6 shows which dimensions of the institutional logic were dominant in that period. Although all the dimensions discussed above are important, exploring weight and dominance of dimensions which constitute fundamentalism institutional logic is also essential because it shows different focuses of each institutional logic.

The difference in focus of each institutional logic may influence actors to form different identities. In fundamentalism (2D) logic, actions in the responses to each other as competing mechanism dimension (17%), the roots dimension (17%), the demand for animators dimension (15%), and the style of practices (14%) dimension were considered the dominant dimensions composing fundamentalism logic, according to content analyses.

Table 6. The Frequencies of Dimensions of Fundamentalism (2D) Logic

Dimensions	Percentage
Style of Practices (Tools)	14%
Skills	2%
Demands for animation	6%
Demands for animators	15%
Roots	17%
Recognition through Award	6%
Quality	6%
Goal	3%
Market Performance	5%
Valued	6%
Threat	3%
Competing Mechanism	17%

Tony White, a very well known 2D animator, introduced how the animation drawing style has been institutionalized through the history of animation in his book “Animation: From Pencils to Pixels” (White, 2006). He demonstrated that in early animation development stage, many restrictions applied in terms of the animation drawing style. In the early animation development stage, Tony White used the term “simple rounded” to describe the style of cartoon characters which were primarily used among animators (White, 2006). He described this style as

“Their limbs were rubbery, twisty, and able to squash and stretch in length, at the whim of the animator. These characters soon became known as "rubber hose characters”, and the films of the 1920s were dominated by this style of drawing” (White, 2006).

In his book (White, 2006), Tony White demonstrates that in later stages, the Disney Studio began to adopt more human-like shape characters and Tony White referred to this term as “skeletal structure”. This was an innovative approach to the whole animation field.

As animation techniques developed, Tony White stated that personalities among characters began to appear in drawing style (White, 2006). By adding personality and feeling or emotion into animation character, new direction to the animation industry as a whole was provided.

The logic of fundamentalism (2D) was developed and institutionalized by the Walt Disney Company and its educational institution named CalArts. After the huge successes of Disney-style animation, such as Bambi and Snow White, many studios adopted this style of drawing. Incorporation of a ‘human dynamic’ drawing style (White, 2006) was spread widely through the California Institute of the Arts, or CalArts. According to the history section on an official CalArts website (CalArts, 2010), CalArts was established by Walt and Roy Disney in 1961 to spread through education their drawing style to the rest of the industry. The school offered various classes from music to performance arts.

Another artisan animator, Hayao Miyazaki of Japan, is known for using very human-like movements and watercolor technique in his animation. In addition, much of his art has been done using watercolors technique (Cavallaro, 2006). Hayao Miyazaki institutionalized a traditional animation style through Studio Ghibli, the

largest animation film company in Japan.

4.1.2 The Emergence of a New Logic: The Dimensions and Defining Characteristics of Digital Impressionism (3D) Institutional Logic in U.S. Animation Industry from 1991-2008

In the history of animation films, the year 1995 was a watershed year. The first animation film using 3D (CGI) technology, *Toy Story*, was released that year by Pixar Animation Studios (White, 2006). Since the introduction of 3D (CGI) technology films, two competing logics have existed.

Before *Toy Story*, the field was primarily guided by the logic of fundamentalism where 2D animators were important resources in the field. When introducing the logic of digital impressionism to the field, the 3D animation studios relied on 2D studio resources. 2D animators did not accept the new logic for the field. However, these competing institutional logics have continued for since 1991. 2D animators continue to support the logic of fundamentalism, and 3D animators adhere to the logic of digital impressionism. (Reay & Hinings, 2009)

Fundamentalism logic is characterized in literature generally as the artisan style of animation, with a focus on artistic quality, a focus on warm colors, soft pastel drawings, and adherence to the traditional process of making animation in which hand drawings are admired and praised (White, 2006).

The successes of 3D (CGI) animation from the 3D (CGI) studios such as Pixar, DreamWorks, and Bluesky surpassed those of 2D animation produced in early 1995 to 2008 (IMDb, 1995-2008). Twenty-five 3D (CGI) films produced from 1995 to 2008 earned \$449 billion in box office revenue, whereas revenue from 2D animation films from 1995 to 2008 was close to \$321 billion as shown in the Internet Movie Database (IMDb, 1995-2008).

Based on newspaper statements, 3D animators showed a consistent focus on visual entertainment using new software technology that enabled animators to transfer from labor-intensive to technology-intensive work. As part of a focus on visual entertainment, the stated goals of 3D animators were to concentrate on providing color that is more vivid and eye-catching and to provide exciting visual entertainment animation. In order to meet their goals, 3D animators planned to focus on inventing creative techniques using software such as Maya and Flash. Therefore, the newspaper data contained ongoing support for the logic of digital impressionism, and conflict between the logics was particularly evident in the desired behaviors associated with each.

Through detailed content analyses, Table 7 shows the institutional logic of digital impressionism. The analyses identified 12 dimensions, using 64 statements, in newspapers from 1991-2008: style of practices (tools); skills; demands for animation; demands for animators; roots; recognition through awards; quality; responses to each other as competing mechanisms; goals; market performance; valued; and threats, as shown in Table 7.

The style of practices dimension of digital impressionism logic consisted of positive descriptions of 3D technology: praise for its photo-realistic computer software styles of animation; its cost and time-saving production processes; its use as tools for animators; its breathtaking photo-realistic 3D animation; that it was the essence of production process and was replacing the hand-drawn animation techniques; that it was colorful, bright, and funny. The claim that 3D technology was replacing hand-drawn animator technique is put forth in the following:

“Instead of the painstaking task of drawing and painting characters frame by frame, the technique perfected by Walt Disney in the 1930's and 1940's,

animators are now doing just about everything with the click of a mouse -- melding hand-drawn characters into computer-generated backgrounds or placing lifelike animals made of pixels on the screen beside human actors. "It doesn't matter what style of animation it is, it has become a part of everything". (New York Times, 2003).

In the skill dimension, the skills of 3D animation (using software such as Flash or Maya) are described as achievable on a mastery level in four to five years. This is a very short time to learn 3D animation skills in comparison to 2D animation skills. The future demand for 3D animation skills is thought to be higher by some, since at least one prominent member of the field described 3D animation as the future of animation film. "I said, 'This is it, this is where animation is going,' Mr. Lasseter said" (New York Times, 1991).

Demands for 3D animators are described as a high demand for both 2D animators and 3D animators for 3D animation films. For example, Tom Leeser, Visual Effects Supervisor at Rhythm & Hues, which completed work on films *Batman Forever* and *The Babe*, said, "There are more job opportunities now than there are available people, so we're going to see a big competition for talent. Anybody who understands computers in filmmaking is very valuable right now." (Variety, 1995) The roots dimension was mentioned in 3D logics (digital impressionism) as 3D animators worried that a root was needed. The need for strong storylines was mentioned. In addition, the foundation of each film was done using the 2D animation technique. It was stated in a newspaper article that "Whether digitally assembled or hand drawn, all animation starts with an artist's sketches and story boards." (The New York Times, 2004). Lastly, it was said that 3D animation had neither novelty nor roots. Another dimension is that of recognition through awards. In 3D logic, it was said that

no awards have been rewarded for 3D animation, but that it had been profitable. In 2001, 3D animation films were racing for an Academy Award. In 2004, 3D animation was nominated for its first Academy award: a separate award category was needed for 3D animation film. In the quality dimension of 3D (digital impressionism), 3D animations are increasingly high quality work. The goals dimension was presented as an expectation for 3D animation to dominate future trends through technology. In terms of market performance, in 2005, the market performance of 3D animation was mentioned: a decrease in returns on 3D animation films was reported due to increased competition. Lower production costs were also mentioned. What is valued in 3D (digital impressionism) was described in terms of the great importance of the release of 3D animation [and represent identity], and 3D animation brought process innovation to the industry. Threats to the logic were described by 3D animators in terms of unresolved technical and cost uncertainties for computer animation.

Table 7. Digital Impressionism Institutional Logics from 1991-2008

Digital Impressionism	
Dimensions	Defining Characteristics
Style of Practices (Tools)	<ul style="list-style-type: none"> • Praise for photo-realistic computer software style of animation. • Described as cost and time-saving production process. • 3D animation software has become tool for animators. • Photo-realistic 3D animation is breathtaking. • 3D technology is a production process that replaces the hand-drawn animator technique. • Described 3D animation as colorful, bright, and funny.
Skills	<ul style="list-style-type: none"> • Skill of 3D animation (using software such as Flash, Maya) can be mastered in four to five years.
Demands for animation	<ul style="list-style-type: none"> • 3D animation is the future of animation film.
Demands for animators	<ul style="list-style-type: none"> • Describing high demand for both 2D animators and 3D animators in 3D animation films.
Roots	<ul style="list-style-type: none"> • There are worries that roots are needed. • Need for a strong storyline. • Foundation of animation is done using the 2D animation

	<p>technique.</p> <ul style="list-style-type: none"> • 3D animation does not have novelty nor roots.
Recognition through Award	<ul style="list-style-type: none"> • No awards for 3D animation, but films are profitable. • In 2001, 3D animation films are seeking Academy Award nominations. • In 2004, 3D animation is nominated for an animation award. • A separate award category is needed for 3D animation film.
Quality	<ul style="list-style-type: none"> • 3D animations are gaining reputations for offering a high quality of work.
Responds to each other as competing mechanism	<ul style="list-style-type: none"> • Competing against 2D animation in having a strong storyline, speed of production, producing realistic images. • 3D animation contains more visual entertainment compared to 2D animation film. • 3D animators state art and technology must co-exist. (Conferences). • No domination in animation style (2D or 3D). • 3D animation films are superior to 2D animation film in terms of bright colors and entertainment. • 3D animator considers whether 3D animation can compete with 2D animation.

Goal	<ul style="list-style-type: none"> • Expect to dominate future trend through technology.
Market performance	<ul style="list-style-type: none"> • In 2005, market success of 3D animation. • Returns decrease due to more competition. • Less expense on production costs.
Valued	<ul style="list-style-type: none"> • Releases of 3D animation films mean very important to 3D animators and the releases of 3D films itself represent an identity. • 3D animation brought process innovation to the industry. • Storyline is core for animation styles.
Threat	<ul style="list-style-type: none"> • 3D animators acknowledge that there are still technical and cost uncertainties that limit the growth of computer animation.

In Table 8, the frequencies of each dimension are listed, illustrating which dimensions of the institutional logic were dominant in the target period. In digital impressionism logic, style of practices (Tools) dimension (23%) and market performance (23%) were shown to be dominant dimensions in the logics of 64 statements mentioned in newspaper articles.

Table 8. The Frequencies of Each Dimension of Digital Impressionism (3D) Logic

Dimensions	Percentage
Style of Practices (Tools)	23%
Skills	1%
Demands for animation	5%
Demands for animators	1%
Roots	5%
Recognition through Award	17%
Quality	1%
Goal	3%
Market Performance	23%
Valued	3%
Threat	7%
Competing Mechanism	12%

This 3D logic was institutionalized through conferences among 3D animators and studio bases as described below. For Freeman's Entertainment Technology Group, the sessions and exhibits were designed to take professional artists and animators to the next level of technical expertise with a special focus on new technologies. Dr. Ed Catmull of Pixar, a pioneer in this area responsible for the development of the Renderman technology and much of the theory driving the industry, presented his keynote address Feb. 19 [1998] on "The Changing Face of Animation." "We're integrating technology with technique this year, offering some practical courses as well as the high-end tech stuff," says Jill Smolin, conference chair and manager of training and artistic development at Cinesite. "Art and technology must co-exist, and we've built the conference so that students in both disciplines can get a foundation in this industry" (Daily Variety, 1998).

4.1.3 Can There be Competing Institutional Logics?

Based on content analysis, I was able to find actions responding to other logics existing in the field of animation. The question of whether institutional logics were in a relationship of competition was defined by Reay and Hinings (2009). According to their definition, if actors belonging to two different institutional logics made hostile statements to each other, then it could be concluded that the two institutional logics were competing with one another. In this dissertation, I added several criteria for competition between logics that can be found in the content analysis. Not only do actors criticize and make hostile comments about each other's logic, but they also make comparisons about each other's output products. As shown in Table 5 and 7, there were several statements that evidence two institutional logics in a competing relationship. For example in Table 5, 2D animators made hostile comments about the lack of novelty and root in 3D animation techniques. 2D animators also criticized the poor quality of 3D animation. In response to 3D animation, 2D animators reported efforts to streamline their own production process system and to strengthen their positive aspects. For example, 2D animators proposed the need for less laborious hand-drawing work and the need to strengthen storylines in order to compete with 3D animation films. A newspaper described the resulting changes: "Disney also embraced a time- and labor-saving gadget called the Rotoscope, invented by his rivals the brothers Fleischer (Max and Dave). It enabled animators to trace over live-action footage and was a prototype of today's computerized Motion Capture, which tracks sensors attached to a moving body" (The New York Times, 1999). Also, efforts to try new techniques and coloring to attract the attention of the audience and improving quality through job cuts have been stated as actions to enhance the competition with

3D animation films. Some 2D animators made comments to the effect that 3D animation was no longer special and that the visual presentation of 3D animation had become very homogenized, so that its uniqueness was no longer novel to their audiences. In addition, 2D animators maintained that 2D animation has become a strong threat to 3D animation, and declared their determination to maintain 2D spirit independently from 3D animation. In the newspaper, this was described as "‘Animation isn't dead, not by a long shot,’ Mr. Goldman said. ‘And neither are we’" (Variety, 2000). 2D animators defined themselves as successful, and they believed that this successful performance showed their durability against the threat of 3D films.

In response to 2D animators as shown in Table 7, 3D animators stated that 3D animation techniques were superior to 2D animation films in terms of bright colors and entertainment value to their audience. They also stated that 3D animation had started to overcome its weaknesses in competing against 2D animation through the development of strong storylines, streamlining production processes, and producing realistic images. For instance, a 3D animator stated, "Recognizing increased competition, and on the heels of its animated film Oscar win for *Shrek*, DreamWorks is building on its success by doubling its production capacity" (The Hollywood Reporters, 2002). They claimed that 3D animation contained more visual entertainment ingredients compared to 2D animation. Superior qualities of 3D animation films were mentioned as compared to 2D animation films in terms of bright colors and entertainment. For example, as the director of *Curious George*, Matt O'Callaghan, said, "Almost everything will be CG, except in rare cases when somebody steps up and has a strong vision for why the movie should be traditionally animated" (Daily Variety, 2006).

4.1.4 Identity Reformation to Competing Institutional Logics

In analyzing role identity in newspaper articles, I looked for both themes and patterns (Clark et al., 2010; Gersick, Bartunek, & Dutton, 2000) in how 2D and 3D animators identified their roles in the field. Through comparisons of within and between coding results, I noted several common elements. I was able to produce a first-order construct with coding results.

In reviewing my first-order construct as shown in Tables 9 and 10, I was able to refine, aggregate and link my first-order construct to a larger second-order construct theorized to be micro-processes (Creed et al., 2010) where identities are adjusted to societal level competing logics. Figure 1 and Figure 2 demonstrate the structure of identity in the diagram.

4.1.4.1 Role Identity of 2D Animators as Identity Reformation

The role identity of the 2D animator had been emphasized due to the importance of drawing techniques in 2D animation. 2D animators brought concepts alive from the storyline to the screen. A key animator, or leading animator, drew the key drawings in a scene, using the character layouts as a guide. In-between animators would fill in scenes between key drawings done by key animators. 2D animations usually took the format of breakdown drawing where the roles of key animators and in-between animators were separated. 2D animators were considered key actors throughout the process of production. 2D animators were recognized as actors in the movie where the animator's unique skills determined which animation character to draw.

MICROPROCESS 1: *Context of Denial of Competing Identity*

In the initial stages of my research, the new emergence of digital impressionism institutional logic which 2D animators faced, provided the initial break point of reassessing their role identity. My analysis indicated that two themes were found in their denial of competing identity dimension: the denial of reality and finding contributions to whole animation, as shown in Figure 1.

Denial of Reality. Some 2D animators attempted to deny the reality that they faced after their exposure to the new competitive 3D technology; 2D animators were not interested. They were opposed to more realistic animation drawings. This was most evident in an animator's statement in a newspaper: "I'm anti making things more realistic. Everything in me goes against it. I don't want to create reality. I'm not interested in reality" (The New York Times). Other 2D animators told similar stories as Disney, then at its creative and financial nadir, that they were was uninterested in the technology. (The New York Times) Overall, 2D animators were denying what they were facing.

Finding Contributions to Whole Animation. As animators faced a new institutional logic, 2D animators reassessed the strength of their abilities and their contributions to the industry as a whole. 2D animators realized that they played a significant role by bringing characters alive in animation. They also claimed that 2D animators were "classic" (The New York Times). In addition, a 2D animator stated that he had made a contribution to the development of personality animation and was acknowledged and valued in the industry (The New York Times). 2D animators were valued since they identified themselves as storyboard sketchers, a basic and core step in making animation films. 2D animators also mentioned that they were recognized as

very important people in the process of producing both 2D and 3D animation film. Skilled teams as well as individuals were much in demand. As 2D animators became aware of the presence of another institutional logic, these actors made efforts to find contributions within their role.

MICROPROCESS 2: *Sources of Identity Fortification*

At the middle stage of analysis, a change in the social environment, such as an increase in competition, would have some influence on identity; the previous means that an individual used to maintain the identity are no longer uppermost and the person must alter the way in which he or she maintains their identity. In an environment containing two competing logics, the 2D animators holding the incumbent logic increased their identity claims as a means of protecting their identity against the challenging identity. 3D animators showed ways of strengthening their identity by recognizing 2D animators as prominent actors, being actively defensive, and demonstrating dominance in the number of awards received.

Recognized as Prominent Identity. As competing logics prevailed, emphasizing how much 2D animators were valued in the field became important, since maintaining recognition was important to 2D animators. Most statements made were about how much the 2D animator was valued in the field. 2D animators saw themselves as superior and valuable to others (The New York Times), as was evident in statements that 2D animators are very important people in the process of producing 2D and 3D animation films (The New York Times); that they are very recognized and valued in the animation industry (The New York Times); that skilled teams as well as individuals are much in demand (Variety); that 2D animators with ideas are identified as the frontier in the animation field (Dailey Variety); that animators are valued in the

video game industry (The New York Times); that they are artistic geniuses and that they are novel (The New York Times). Their work was described as labor intensive and done by hand, for example: “What is novel about Mr. Ezawa's animations is that, for the most part, he does them by hand” (The New York Times).

Active Defensive Action. As 2D animators felt threatened, reports indicated that they mounted an active defense toward protecting their identity and that they were fighting for their art spirit. For example, “Animators are fighting for their art, reports Dalya Alberge, eighty years after Walt Disney put pen to paper to create Mickey Mouse, his studio has abandoned hand-drawn animation.” (The Times of London) Also made were statements that animators would not follow the industry trend but would make their own independent decisions. For example, Fox Animation’s Chris Meledandri, although he fully conceded that there is “an industry trend aggressively pushing CG, away from traditional animation,” he also insisted that Fox would consider any medium for making films, based on the nature of individual projects. (Daily Variety)

Dominance in Receiving Awards. 2D animators mentioned that both 2D animators and 2D animations were dominant in award ceremonies, such as the Academy Awards. There were statements about the pride animators took in the fact that all three traditional hand-drawn style 2D films (using traditional technique) were best animated feature Oscar nominees, and statements that 2D animators were still strong and won Oscars. For example, “Last year, all three best animated feature Oscar nominees were 2-D films – two stop-motion affairs and the hand-drawn *Howl's Moving Castle*. A year later, the feature world witnessed a massive CG parade in which only two of the 16 contenders were created in the traditional hand-drawn style” (Daily Variety). Another supporting example was, “Miyazaki's hand-drawn *Spirited*

Avatar won an Oscar in 2003 and made \$270 million (£150 million) in Japan alone” (The Times of London).

MICROPROCESS 3: Accusation

Blame. Some 2D animators expressed blame toward other animators who abandoned the 2D animation technique, for example, “I totally disagree with all the studios that have chosen to stop doing hand-drawn animation. It's not about technology but how much you can entertain audience” (Daily Variety). Also, there have been statements by 2D animators criticizing Hollywood’s abandonment of real art of 2D animation by dropping hand-drawn style animation. “It's not better or worse -but the advantage of hand-drawn imagery is that it looks more human, more artistic. The human touch is so evident” (Times of London).

MICROPROCESS 4: Pursue an Artier Approach

More Dramatic Identity. As competition became fiercer over the years, statements that animators still maintained loyalty towards traditional 2D were published. For example, “We could have done the *Were-Rabbit* in CGI,” Park said. “But we chose not to because I find with traditional (stop-motion) techniques and clay there is a certain magic that happens whenever the frame is hand-manipulated. I just love clay; it's an expression” (The Hollywood Reporters). Also, statements were published that “some animation is taking an artier approach, using traditional 2D animation (Variety). 2D animators sometimes declared themselves as the purists: “I'm being a purist here, but animation is the art of creating a character that otherwise doesn't exist” (Daily Variety). As the competition increased, incumbent actors have regressed toward traditional ways of producing film.

Table 9. Data Structure of 2D Identity Formation

Representative Supporting data from Each 2 nd Order Theme	
2 nd Order Theme	Representative 1 st Order Data
a. Denial of reality	<ul style="list-style-type: none"> • Disney, then at its creative and financial nadir, was uninterested in the technology. [The New York Times] • Artist artistry and stylization become the focus. For me that's the joy of filmmaking. I don't want to create reality. I'm not interested in reality. [The New York Times]
b. Finding contributions to whole animation industry	<ul style="list-style-type: none"> • Disney eventually made his greatest contribution to the art of animation: the development of personality animation in its most subtle and powerful form, which culminated, in 1937, with "Snow White and the <i>Seven Dwarfs</i>." [The New York Times] • Animators and directors of animation sketched out the storyboard shot by shot, the special effects director, Mr. Jones, and his crew developed a system that would allow a computer to track Mr. Pytka's often spontaneous camera movements. Once filming began, Mr. Jordan was shot against a green screen that had been marked off with a grid to pinpoint where other characters would stand. "It was like making a movie backwards," says Mr. Cervone. To locate everyone precisely, the two animation directors resketched the storyboard to document the live-action scenes as they were being shot. These outlines gave the editor a notion of where the animated characters could roam in relation to the always-fixed Mr. Jordan. After live filming and the various stages of animation were finished, all the footage was converted into digital information and the movie was put together, frame by

	frame, layer by layer. [The New York Times]
c. Recognized as prominent identity	<ul style="list-style-type: none"> • As in every art form, the new frontier will be defined not by technology but by ideas. • What is novel about Mr. Ezawa's animations is that, for the most part, he does them by hand. Rather than simply filtering his source images through software technology to make them look like animations, he manually reconstructs them, frame by frame, along with all of the motions and movements on a computer using drawing software. It is very labor intensive, even sort of irrational. [The New York Times] • Animators, who worked at Disney for 12 years, said: "A lot of us spent most of our lives learning to draw and work in this medium. There is a feeling about hand-drawn animation that you don't see in computers." HOW IT ALL BEGAN ... AND ENDED [The Times London]
d. Active Defensive action	<ul style="list-style-type: none"> • Animators are fighting for their art, reports Dalya Alberge, eighty years after Walt Disney put pen to paper to create Mickey Mouse, his studio has abandoned hand-drawn animation. [The Times of London] • Fox Animation Chris Meledandri echoes the sentiment. Though he fully concedes there is "an industry trend that is aggressively pushing CG, away from traditional animation," he also insists Fox will consider any medium for making films based on the nature of individual projects. [Daily Variety]
e. Dominance in awards	<ul style="list-style-type: none"> • Last year, all three best animated feature Oscar nominees were 2-D films --- two stop-motion affairs and the hand-drawn "Howl's Moving Castle." A year later, the feature world has witnessed a massive CG

	<p>parade, so much so that only two of the 16 contenders were created in the traditional hand-drawn style. [Daily Variety]</p> <ul style="list-style-type: none"> • Miyazaki's hand-drawn <i>Spirited Away</i> won an Oscar in 2003 and made \$270 million (£150 million) in Japan alone. [The Times of London]
f. Blaming	<ul style="list-style-type: none"> • Animators using hand-drawing were becoming "a rare or extinct species". Troy Gustafson, a Disney employee for 12 years, said he had mixed feelings, of sadness and anger, and did not want to see hand-drawn animation die out: "It's a talent. It's a skill. Once it's gone, it's gone." [The Times of London] • "I totally disagree with all the studios that have chosen to stop doing hand-drawn animation," he tells Daily Variety, "because it's not about the technology --- it's about what you do with it. So many people are getting on the computer-animation bandwagon because they think that if a movie is computer-animated, they'll get a hit. But the history of cinema shows that audiences love to be entertained --- it's as simple as that." [Daily Variety]
g. Pursue artier approach	<ul style="list-style-type: none"> • "Artist's touch when I watch those movies", Aardman Animations, which has traditionally been a stop-motion animation studio, is making its first feature-length foray into computer animation with DreamWorks' "Flushed Away" later this year. Despite the move to digital filmmaking at Aardman, Park maintains his loyalty to clay. "We could have done the 'Were-Rabbit' in CGI," Park said. "But we chose not to because I find with traditional (stop-motion) techniques and clay there is a certain magic that happens whenever the frame is hand-manipulated. I just love clay; it's an expression." [The Hollywood

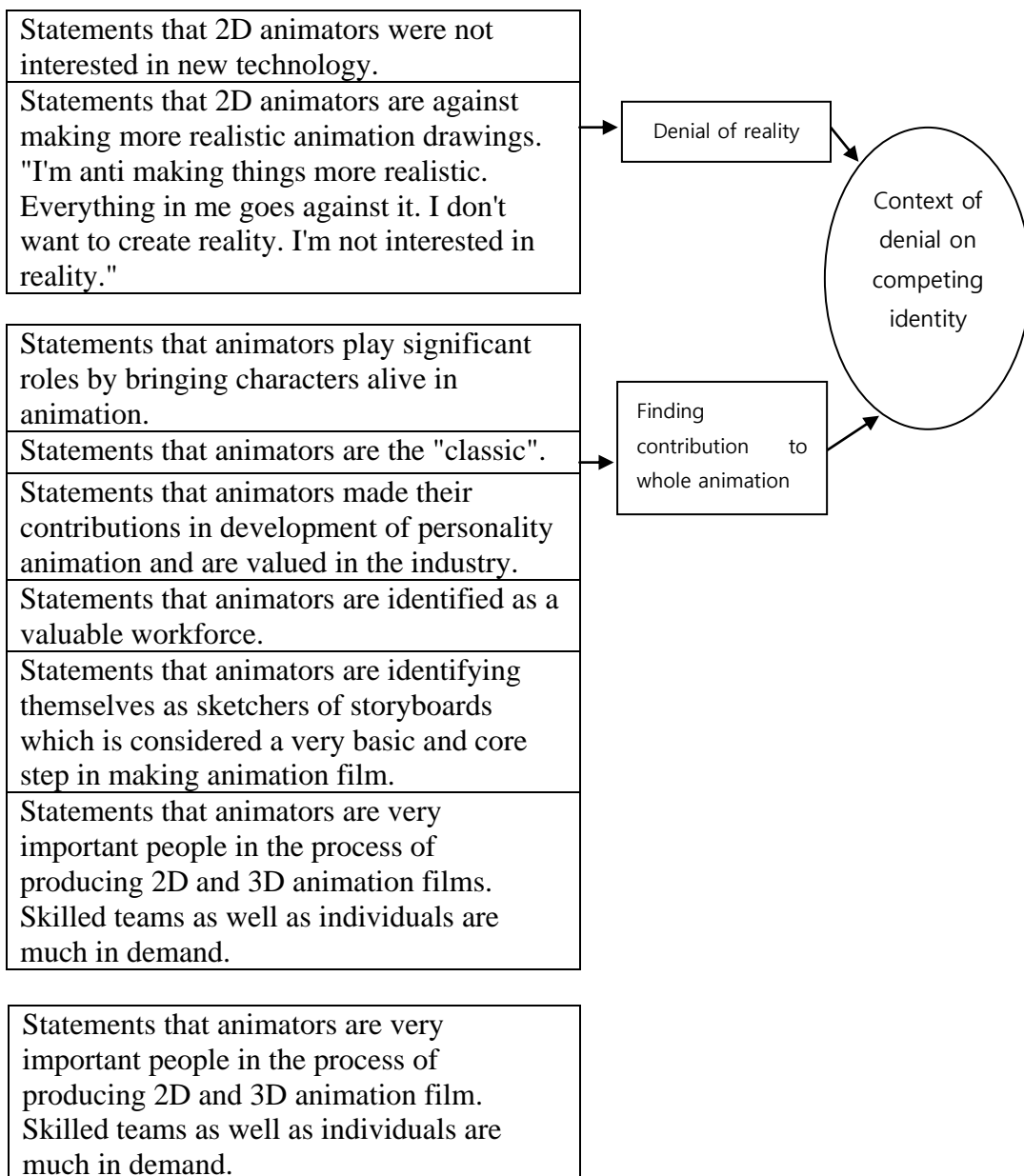
	<p>Reporters]</p> <ul style="list-style-type: none"> • Some animation is taking an artier approach, using traditional 2-D animation. [Variety] • "I'm being a purist here, but animation is the art of creating a character that otherwise doesn't exist." [Daily Variety]
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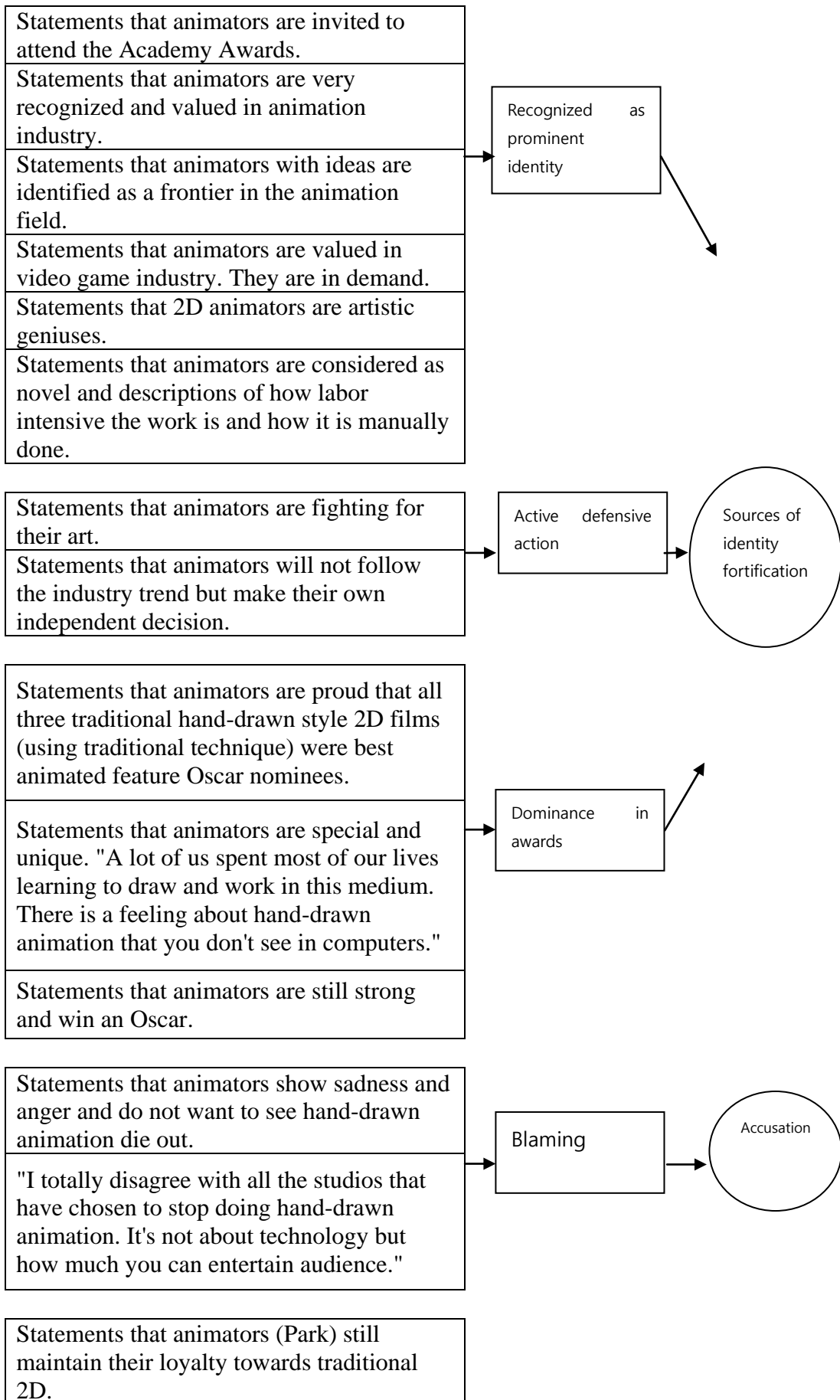
1st Order
Aggregate/Overarching
Concepts

2nd Order

Themes

Dimensions





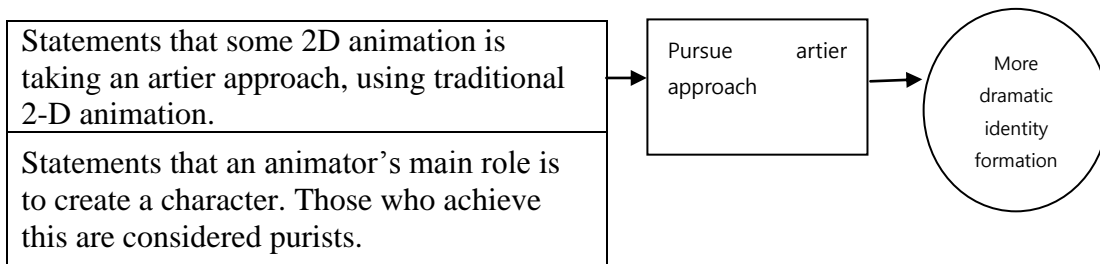


Figure 1. The Data Structure of 2D Animator Role Identity Representation in Response to Competing Institutional Logics

4.1.4.2 Role Identity of 3D Animators as Symbiotic Identity Construction

MICROPROCESS 1: Valuing Incumbent Identity

Differentiate from competitor. In the initial stage, as shown in Table 11 and Figure 2 where competing logics started to co-exist, the new emergent institutional logic had to make a breakthrough in order to become visible in a flood of 2D animation film production. As for their response to this situation, 2D animators identified themselves by making statements such as, “It's very important for us to differentiate each movie that we make, Meledandri says” (Daily Variety). 3D animators also emphasized a differentiation between their films, for example: “DreamWorks Animation has developed an identity without committing to a house style, which explains why the rodents in *Over the Hedge* bear no resemblance to the rats in *Flushed Away*.” (Daily Variety) 3D animators were also against the “musical formula” of 2D animation. One 3D animator, Mr. Lord, 47, said in a telephone interview from Bristol, “We were very hostile to the idea of the musical formula” (The Washington Post). It was said that 3D animators had to drop the musical formula of 2D animation to differentiate themselves from 2D. In these different ways, they adopted a general stance of having a different identity from 2D.

Appreciation of 2D Identity. Although 3D (CGI) production used computer graphics to draw and color each frame, 2D animators were still required at the

conceptualization stage to sketch the overall characters and background (Crawford, 2003 ; Jones & Oliff, 2006). For this reason, 2D animators were valued and their skills still appreciated among 3D animators. One 3D animator stated in a New York Times article that, “Whether digitally assembled or hand-drawn, all animation starts with an (2D) artist's sketches and story boards” (1997).

In a similar vein, 3D animators appreciate the value of 2D animation skills, and thereby even support the production of 2D animation. For example, “Lasseter was the one who approved making *Frog Princess* using traditional techniques, and he indicates a general willingness to keep the art form alive at Disney” (Daily Variety). Other supporting newspaper content stated that “John Lasseter, of the animated films *Toy Story* and *Cars*, said that the studio was still committed to producing hand animated films” (The Times of London). Overall, as the above content data supports, the value of 2D identity is supported even by 3D animators.

To comprehend the formation of the appreciation of 2D identity by 3D actors, understanding the basic production process is vital. Through the introduction of a new technology, CGI, the production process of animation changed from 2D, and this new form seemed to dominate its field (Yoon & Malecki, 2009). The incorporation of computers in animation started in the 1960s, and since 1970, 3D (CGI) special effects in live action movies have been incorporated. 3D (CGI) animation creates an aesthetic appeal which involves visually richer and more exciting scenes (Jones & Oliff, 2006).

The 3D (CGI) production process begins with production design, as shown in Table 10. Production design starts early in pre-production and continues throughout the creation of the film. Characters and props are sketched by 2D animators as guides for 3D modelers. The next step is storyboarding and modeling. In the modeling stage, the main characters are modeled first in clay. The clay models are then 3D-scanned

into the computer. Secondary characters and props are modeled directly from sketches. In the storyboarding stage, hundreds of storyboard drawings are created in the production of animated film. These quick sketches help block out the general placement of characters and framing for every single shot or significant action in the film. The third step is rigging and lip-sync, 3D layout, and texture mapping. In the rigging and lip-sync process, dozens of expressions and mouth shapes are rigged for each speaking character. Those shapes are then synchronized with the dialogue during the lip-syncing process. The 3D layout blocks out the physical set, using the storyboard and production design art as a guide, and works out all of the camera movement inside the computer, based on the sketches from the storyboards. In the texture and mapping stage, every object is colored by using a computer technique. In the environmental modeling stage, based on detailed drawings, the modelers refine the 3D layout by replacing the rough shapes with detailed models. In the animation stage, computer animators create the key poses that dictate the movement of every attribute of every character and object on screen. In the special effects stage, simple things like flowing water and grass blowing in the breeze are formed in 3D (CGI) using special effects. In the rendering and composition stage, when a 3D scene is rendered, the computer creates a flat, 2D picture of a 3D scene.

Table 10. Production Process of 2D and 3D (CGI)

	2D Animation Film	3D (CGI) Animation Film
Production Process	<ol style="list-style-type: none"> 1. Conceptualization 2. Pre-production 3. Production 4. Post-production 5. Distribution (Neuwirth, 2003; Wright, 2005, Kratke, 2002). 	<ol style="list-style-type: none"> 1. Production Design (Sketches as guides for 3D modelers.) 2. Modeling (Clay model→3D scanned into computer) 2. Storyboard (Hundreds of Sketches are created) 3. Rigging and lip sync (Mouth shapes & expressions are rigged) 3. 3D Layout (3D layout artist block out physical set) 3. Texture Mapping 4. Environmental Modeling 5. Animation 6. Special Effects (Flowing water) 7. Rendering and Composing (Creating 2D image)
Involved Actors	Director, producer, editor, 2D animator.	Director, producer, editor, 2D animator, 3D animator.

Overall, these steps require a lot of skilled animators, and they require more time-consuming work than cel-animated films, thus necessitating bigger budgets (Robertson, 1998). The large budgets and assembly of skilled 3D (CGI) animators create high barriers to entry (White, 2006). Consequently, 3D (CGI) animations are released and dominated by very few studios, even though 3D (CGI) techniques in special effects are widespread. However, as technologies diffuse, large-scale technological innovation is starting to emerge, leading to relocation of production, as foreseen by Scott (1984).

MICROPROCESS 2: Role Defining

After our 3D animators went through the process of forming a symbiotic identity, which was the formation of a favorable identity towards a challenging

identity, 3D animators in this stage defined their own role as a sign of forming an independent identity.

Role Defining and Dignity. Role defining is publicly enacted and externally focused. All 3D animators described their role in a visible, external declaration to the public. 3D animators claimed to be creative geniuses and also displayed their sense of role dignity by stating that they outpaced 2D animators:

Over the past two decades, the 730-person Pixar has garnered a reputation as a place where creative genius thrives, and in recent years the studio has far outpaced the bigger and more institutionalized Disney with hits such as *The Incredibles* and *Finding Nemo*. Beyond its money-making ability, Pixar won critical acclaim for bringing adult emotional appeal to a traditional kids' medium. (The Washington Post)

Further, 3D animators claim that they create an ever greater illusion of realism, achieving the dream of moving animation:

Like Disney, Mr. Lasseter has moved his studio's product toward an ever-greater illusion of realism, achieving the dream of moving animation away from the two dimensions of the single drawing board that Disney began with its depth-producing multiplane camera, invented by William Garity and first used in the Silly Symphony "Old Mill" of 1937. (The New York Times)

Innovator. 3D animators identified themselves as innovators in animation. This has been stated in terms of explaining the process of making 3D animation: as 3D animation created and offered new dimensions to animation film, 3D animators were the innovators. 3D animators also focused on a single version as the creative soul of a project to keep their work creative. 3D animators created ever greater

illusions of realism, achieving the dream of moving animation. In addition, 3D animators are creators of something the audience knows to be fantastic. Mr. Lasseter stated, “since I started working with computer animation in 1981, the goal in the computer graphics research world has been to create tools that can reproduce reality,” He continued, "I use many of these tools, but I use them to create something the audience knows doesn't exist, then mess with their minds by making it look real and believable. I think visualizing a believable world that is very fanciful may be harder than taking a photograph and trying to reproduce it” (The New York Times). Further, 3D animators described how 3D animation and its animators have established an industry benchmark in terms of its management style and creative process. For example, it was said that “Pixar's hands-off management style and its artisan cultivation of the creative process have helped it become the benchmark against which the rest of the industry measures itself. For us now, the high-water mark is Pixar” (The Washington Post)

Table 11. Data Structure of 3D Identity Formation

Representative Supporting data from Each 2 nd Order Theme	
2 nd Order Theme	Representative 1 st Order Data
a. Differentiate from competitor.	<ul style="list-style-type: none"> • “We were very hostile to the idea of the musical formula,” Mr. Lord, 47, said in a telephone interview from Bristol, where both he and Mr. Park, 42, were taking a break from guiding 30 animators shooting simultaneously on as many small sets. “Neither of us could understand why you had to go through a Broadway show suddenly when you came to do an animated film,” he said.” [The New York Times] • It's very important for us to differentiate each movie that we make, Meledandri says. [Daily Variety] • DreamWorks Animation has developed an identity without committing to a house style, which explains why the rodents in <i>Over the Hedge</i> bear no resemblance to the rats in <i>Flushed Away</i>. [Daily Variety]
b. Appreciating value of 2D animators	<ul style="list-style-type: none"> • Lasseter was the one who approved making <i>Frog Princess</i> using traditional techniques, and he indicates a general willingness to keep the art form alive at Disney. [Daily Variety] • When John Lasseter, animated films <i>Toy Story</i> and <i>Cars</i>, he said that the studio was still committed to producing hand animated films. [The Times of London] • Frameworks digitally millions of lines Characters, like Woody, are translated from clay models into digitized ones -- made of millions of lines linked to make polygons. Manually: hundreds of lines all characters start with a rough pencil sketch by the lead animator. These are copied and refined by another artist. The

	<p>most complex characters, like Hercules, are made up of hundreds of lines. Color Digitally Millions of Colors: the computer has millions of colors available to it. Once the model is created, the surface is colored. The computer will adjust color for the light source, the light color, shadows and reflections on the object. Manually Hundreds of Colors: this is the only digital stage in Disney's animation process. Clean drawings are scanned into a computer and colored by artists, but the colors are largely determined by an art director. Motion Digitally Computerized: motion key frames in a scene are built by an animator. Then a computer fills in the actions in between that will make the motion look fluid in the film. Manually Hand-drawn: motion the lead animator for a scene draws the key frames, but one or two "in-betweeners" draw the steps that complete the fluid motion. The faster the motion in the scene, the more drawings the lead animator completes to get the subtleties just right. [The New York Times]</p>
<p>c. Role dignity</p>	<ul style="list-style-type: none"> • Over the past two decades, the 730-person Pixar has garnered a reputation as a place where creative genius thrives, and in recent years the studio has far outpaced the bigger and more institutionalized Disney with hits such as "The Incredibles" and "Finding Nemo." Beyond its money-making ability, Pixar won critical acclaim for bringing adult emotional appeal to a traditional kids' medium. [The Washington Post] • Like Disney, Mr. Lasseter has moved his studio's product toward an ever-greater illusion of realism, achieving the dream

	<p>of moving animation away from the two dimensions of the single drawing board that Disney began with its depth-producing multiplane camera, invented by William Garity and first used in the Silly Symphony "Old Mill" of 1937. [The New York Times]</p>
<p>d. Innovator</p>	<ul style="list-style-type: none"> • “Since I started working with computer animation in 1981, the goal in the computer graphics research world has been to create tools that can reproduce reality,” Mr. Lasseter continued. “I use many of these tools, but I use them to create something the audience knows doesn't exist, then mess with their minds by making it look real and believable. I think visualizing a believable world that is very fanciful may be harder than taking a photograph and trying to reproduce it” [The New York Times]. • Pixar's hands-off management style and its artisan cultivation of the creative process have helped it become the benchmark against which the rest of the industry measures itself. “For us now, the high-water mark is Pixar,” said Dug Ward, manager of the Animation Workshop at the University of California in Los Angeles film school. [The Washington Post]

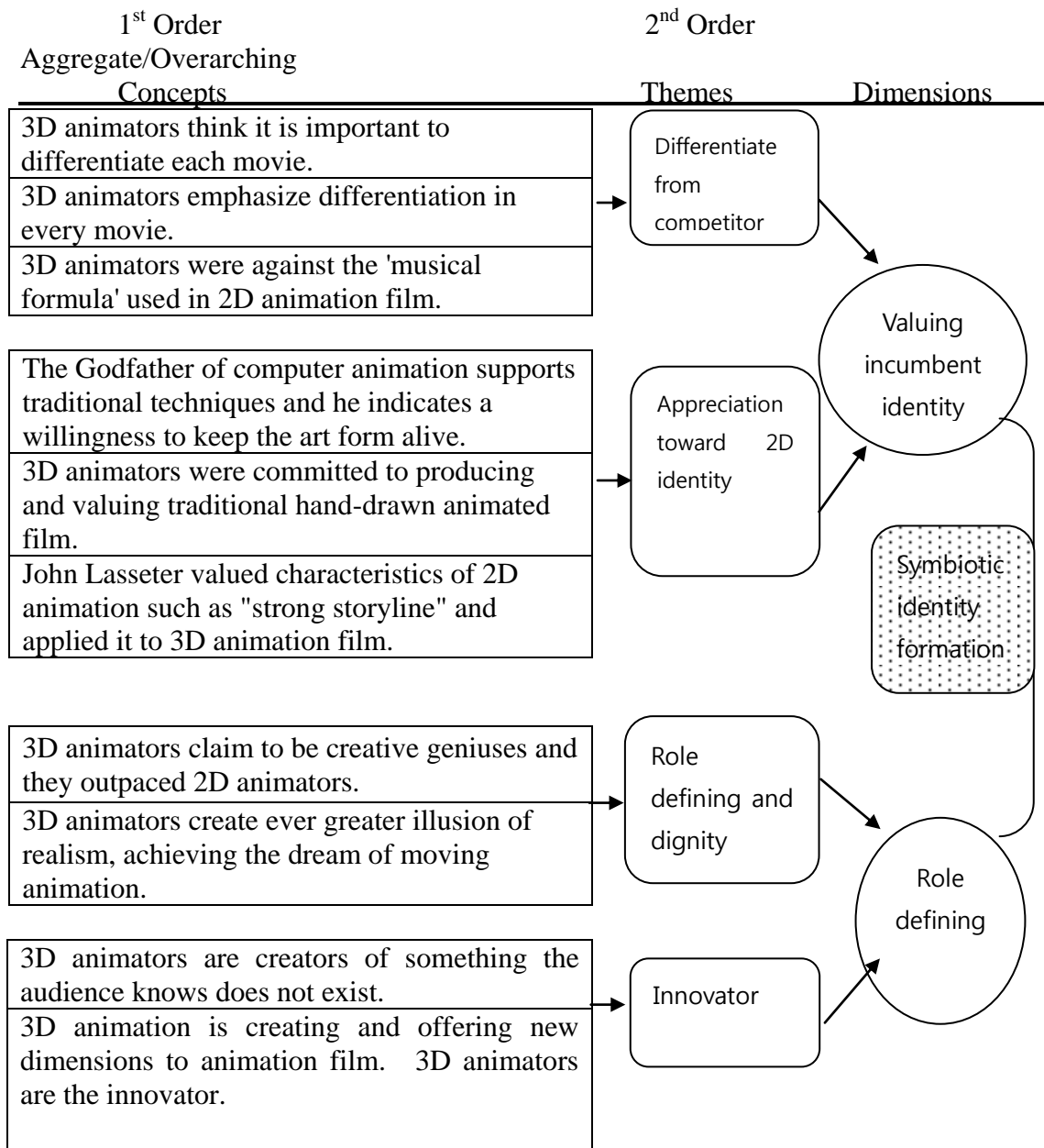


Figure 2. The Structure of 3D Animator Role Identity Representation in Response to Competing Institutional Logics

4.1.4.3 Discussion on Formation of Symbiotic Identity: The Fundamental Logic in Digital Impressionism

When new technology is introduced to a field, the common case is that the old technology and its incumbent logic is replaced by the new technology and its challenging logic, and that most of the research which has emphasized the process of

change is specifically focused on the change of the role identity (Rao et al., 2003). However, a unique phenomenon was manifested with regards to the animation film industry. 2D animators seemed to maintain their incumbent logic and even to strengthen their identity. What allowed 2D animators to work for 3D animation and 3D animators to form an appreciation toward 2D animators was the animation-producing process of 3D (CGI), in which 2D animators were still required to produce 3D (CGI) animation. I identified this type of strategy by 2D animators as a process-oriented resource sharing mechanism. In Marquis and Lounsbury's (2007) study, the roles of professionals were highlighted to protect their logic and role in creating a new organization. Organizational fields consist of suppliers, resource and product consumers, journalists, and regulatory agencies (DiMaggio & Powell, 1983). Key actors within these fields interact with each other (Scott, 1994). This process-oriented resource sharing mechanism by 2D animators allowed 2D animators to work in 3D animation, providing possible spaces for a shift. This increased the interaction between the two competing logics and allowed animators to actively protect their identity by sharing it with their opponents. Since job positions or spaces are available for 2D animators to join and be involved in the production of 3D animation as a 2D animator, my next question was why and what kind of 2D actor made the shift to work for 3D animation film.

Most previous research into institutional change has discussed how actors with certain characteristics move from one dominant logic to another within a field. Leblebici et al. (1991) examined changes in the radio broadcasting industry, showing how actors from the field's periphery engaged in unorthodox practices that were gradually accepted, moving these actors to prominent field positions. Galaskeiwicz's (1991) study found that change was initiated by structurally well-placed inter-

organizational field leaders who acted as change agents by consciously introducing new practices.

What has been missing in the literature so far is a focus on the actors with power-related characteristics coexisting in the context of competing logic, cross-boundary behavior, and how their logics are influenced by one another. Since 2D animators are shared in this animation film context, logics are also shared; it is important to explore which 2D animator decided to work in 3D and how they influenced the logic of digital impressionism.

4.2 The Results of Statistical Analysis

Table 12 presents the result of the analyses in this research. Model 1 shows the effect of the control variable, late period effect. The effect of the late period is significant and positive when compared to the reference category of the early period.

Model 3 includes the effect of power and structural hole of 2D animator which is related to an advantaged position to spread their identity as their goal on shift after controlling for a late period control variable and market control variables. Model 3 shows that the effect of behavior of a powerful social network position is significant and positive, indicating that for every one point of increase in power, the log odd of making a shift increases by 0.010. Therefore, hypothesis 1 is supported. The impact of a structural hole on a shift is also positive and significant, indicating that hypothesis 2 is endorsed. This could be interpreted as for every one point of increase in between centrality measure, the log odd of making a shift increases by 0.135.

The testing validity of the model through the Wald statistic showed that the variables in the model show significance and that the model was also significant at $p < 0.01$. After testing the Wald statistic, the goodness of fit of the model was tested.

The result of the Hosmer-Lemeshow (1989) test was not significant ($p = 0.40$) at the significance level of 0.05, rejecting the null hypothesis that the data was not fitted to the model. Therefore, this test shows that the model developed appears to fit the data well.

Table 12. Binary Logistic Estimates

Variable Names	Model 1		Model 2		Model 3	
H1_Powerfulness (Lagged 5 years)					0.010***	(0.001)
H2_Structural Hole (Lagged 5 years)					0.135***	(0.034)
Market Control Variable: 3D Animation Film Released (Lagged 5 years)			-1.115	(1.018)	-1.932	(1.134)
Market Control Variable: Wage Difference in Ratio (Lagged 5 years)			0.709***	(0.085)	0.566***	(0.086)
Market Control Variable: Revenue of Growth 3D animation film (Lagged 5 years)			-0.178	(0.143)	-0.275	(0.146)
Control Variable: Later Period Effect (Lagged 5 years)	1.287***	(0.067)	1.059***	(0.093)	1.382***	(0.099)
Constant	-3.639***	(0.045)	-3.980***	(0.068)	-4.715***	(0.083)

Standard errors are in parentheses.
 * $p < 0.05$
 ** $p < 0.01$
 *** $p < 0.001$

4.2.1 Support from Interview and Content Analysis

An interview with a 3D animator at DreamWorks supports the result of the statistical result on Hypothesis 1. He states:

Even in DreamWorks, 2D Lead Animators or Animation Supervisors are managed with high pay and high credit. These 2D Lead Animators and Animation Supervisors have enormous previous experience and are famous

for their prior work making 2D animations. These highly credited 2D animators come over to 3D animation and they are more likely to influence 3D animators to preserve their 2D spirit in 3D. Since high credited animators are respected in the whole animation industry, we respect their idea on keeping the 2D-way.

Also, my content analyses data supports the following argument.

The traditional way was also pursued by Hayao Miyazaki, the famous Japanese animator who won an Oscar in 2003 for *Spirited Away*. He criticized Hollywood studios for abandoning artistry in favor of computing, and believed that their approach was dictated by computer games and the number-crunching success of computer generated crowd-pullers such as *Shrek*. Miyazaki's *Howl's Moving Castle*, a two-hour feature that involved thousands of hand-drawn frames, 24 per second, was based on a story by Diana Wynne Jones, a British author. When John Lasseter, director and animator of the computer animated films *Toy Story* and *Cars*, was made head of Disney films this year, he said that the studio was still committed to hand-done animation as part of their production process.

The above statements reveal that 2D animators, especially powerful 2D animators, pursue the goal of influencing 3D animators about their identity by making a shift to 3D animation and being involved in the production process.

4.2.2 Was the Movement a Response to Opportunities in a New Market Factor?

As I discussed earlier, actors' shifts could be attributed to market factors such as opportunities in a new market. Some would argue that the reasons for actors making the shift can be a simple response to opportunities in a new market, as some studies included this variable as a control variable (Rao et al., 2003). The baseline

for studies of actors' shifts is how economic environments, in particular, opportunities in new markets, create incentives for shifts. An alternative explanation for why actors make these shifts can be a simple response to opportunities in a new market, as some studies included this variable as the control variable (Rao et al., 2003). One argument was that 2D animators shifted due to the higher wages offered by 3D animation film production companies. A second argument was that actors made the shift because the 2D animators are attracted by revenue growth of 3D animation film. The third argument was that a market factor such as a 3D animation film release can motivate people to shift.

In this study, Model 2, shown in Table 12, adds the effects of the market factors as control variables, the wage difference in ratio between the 2D and 3D industries, 3D animation film releases, and the revenue growth of 3D animation films. The effect of wage differences in ratio was significant and positive, indicating that 2D animators were more likely to make a shift on account of the higher wages of a 2D animator who works in 3D animation compared to the average wages of the 2D animator who works in 2D animation films. The effect of 3D animation film releases was not significant. The effect of the revenue growth of 3D animation films was not significant. On balance, market factors do play a role, especially the wage difference in ratio, but despite their inclusion, the effect of late period effect control variable, remained largely unchanged from model 1. Therefore, my hypotheses continue to be supported.

Chapter V: Discussion and Conclusion

The primary research question of this research was how competing institutional logics shaped role identity and affect the behavior of actors involved. Previous studies on identity formation have suggested that identities are socially constructed, adjusted, modified and negotiated phenomena rather than end states (Meyerson & Scully, 1995), this study clearly supports role identity adjustments under competing logics. A primary contribution of this study has been the discovery of symbiotic identity formation by 3D animators during the competing logics co-existing period. Another contribution was the finding that 2D, or incumbent, animators formed more of a defensive identity.

By combining my findings with these theoretical arguments, I introduce a research model, presented as Figure 3. My findings suggest that, in at least some cases, under competing institutional existing period, incumbent actors who are 2D animators in my setting tended to form defensive identities as a form of resistance to change. According to this model, the content analysis result shows that the first step of their change was to make denials of the existence of competing identity as they showed denial of reality and finding contribution of themselves as a role in the field. This research finding supports previous research on the internalization of their conflict due to a new institutional logic in the field (Creed et al., 2010). The next stage was forming identity fortification. As a source of identity fortification in a competing situation, 2D animators mentioned their prominence in the field. Another theme discovered under sources of identity fortification was active defensive actions toward competing identity. 2D animators explicitly stated they were fighting for their art and they mentioned their independent decision-making process against their competing identity. The dominance in awards by 2D animators has also been found in the data.

Following this identification state was accusation, in which 2D animators blamed those who abandoned their traditional technique for new technology. At the final stage, 2D animators pursued an artier approach and considered themselves as purists. These research findings were in line with previous research findings on identity as a source of resistance to change (Meyer & Hammerschmid, 2006; Townley, 1997).

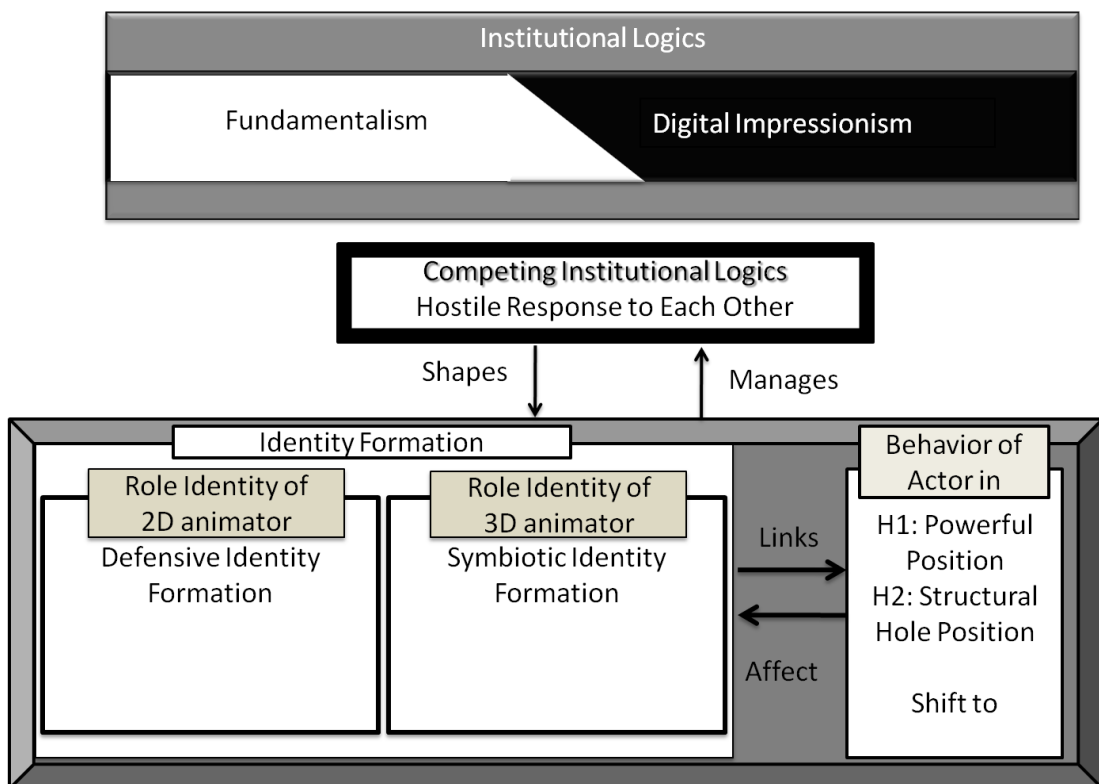


Figure 3 Research Model

On the other hand, challenging actors, 3D animation in this context, tended to form a symbiotic identity toward the incumbent logic, which meant that 2D animators were respected by 3D animators. The first stage of identity dimension formed by 3D animators was to value the incumbent identity. Two themes were found and one of them was related to differentiation. 3D animators claimed that they were different from 2D animators, and furthermore, they emphasized the need to be differentiated from them. The second theme was related to the appreciation value of 2D animators.

Normally, when 2D animators and 3D animators were in a competitive relationship, it was more likely for actors to be hostile to each other since they were competing (Reay & Hinings, 2009). However, in this research setting, 3D animators came to appreciate 2D animators. Another stage of identity dimension formed by 3D animators was role definition. 3D animators defined their role as that of achieving realism in the field, attaining creative genius, and setting standards of creativity for the field. Another theme for role defining was that of innovator. 3D animators claimed that 3D animators were creators of new tools and offered innovation to their profession. Identity formation by 3D animators provided a unique contribution to this dissertation, since the term symbiotic identity formation has been defined as valuing incumbent identity, their role and pride. This study suggests that rather than forming hostile identity in competing logic situation, 3D animators formed symbiotic identity.

Troiden (1993) developed the well-recognized model of identity formation (Cass, 1979; Coleman, 1982; Lee, 1977; Ponce, 1978; Schafer, 1976; Troiden, 1979; Weinberge, 1978) by incorporating the work of many individuals over the last 25 years with his own model. Especially, relatively few literatures made connected between institutional logic and identity formation process (Creed et al., 2010; Lok, 2010). This research makes a contribution to the stream of identity formulation literatures in response to competing institutional logics.

Previous studies recognized the importance of identity formation as a mechanism through which institutional change can be effected or blocked (Creed, 2002; Creed et al., 2010; Maquire & Hardy, 2005; Rao, 2003; Suddaby & Greenwood, 2005). The construction of identity by actors is seen as an important form of institutional work as identity formation which matches with logic can lead to institutionalization (Lawrence & Suddaby, 2006). In other words, if there is an mismatch between identity and logic,

two separate logics exist in the field. In line with this stream of research, my findings revealed that the digital impression logic at the macro-level makes hostile arguments but forms symbiotic identity. There was a mismatch between logic and identity; therefore, the new logic failed to institutionalize and two competing logics are maintained and co-existing.

Through the second part of this research, the deficiencies of the traditional approach to dealing with the embedded nature of social behavior are highlighted. Granovetter's (1985) theory of embeddedness is defined as the way in which action is constrained or facilitated because of its social context. Previous research analyzing the phenomenon of competing logics and its effect on institutionalization posit that a competing situation is an important precondition for embedded agency (Creed et al., 2010; Friedland & Alford, 1991; Seo & Creed, 2002). In particular, if the actors are powerful, and therefore embedded in the network, it would be harder for them to move away from the network since they are more tied by social constraints. Contradicting with previous research, this research explained that “identity as goal” has been a key driver for actors to shift. More specifically, powerful actors are more likely to shift. This result provides an important contribution to the literature of embeddedness, since, although it is a competing situation and the actors are powerful, actors are making shifts to achieve their identity spreading goal.

Most importantly, these shifts among actors contribute to the literature on how identity plays a critical position in connecting the institutional logics and behaviors of actors (Rao et al., 2003; Reay & Hinings, 2009). This research argues that symbiotic identity formation which was constituted in response to competing logics becomes the goal of an actor's behavior. This research has important implications for the micro-level theory of institutionalization literatures (Powell & Colyvas, 2008). Previous

scholars have emphasized the need to make the micro-foundation of institutional theory more definite (DiMaggio & Powell, 1991; Zucker, 1991). The bulk of institutional research has been focused on the sectoral, field, and global levels, leaving a need for richer understandings of how individuals locate themselves in social relations and interpret their context in terms of identity. The result of this study contributes to this line of literature by demonstrating how institutional forces shape low level individual interests and desires, and framing their identity for possible goal-oriented behaviors.

This research demonstrates implications for the fairly new research stream of competing institutional logic literatures. As a new stream of research emerges on competing logic, multiple studies have identified situations where competing logic continued to co-exist for a lengthy period of time (Lounsbury, 2007; Marquis & Lounsbury, 2007; Reay & Hinings, 2005, 2009). Several studies have acknowledged the existence of such competing logic situations. For instance, Friedland and Alford (1991) explained how multiple kinds of historically-rooted belief systems caused ongoing conflicts, leading to institutional change and resulting in a settling for maintenance (Fiss & Zajac, 2004; Lounsbury, 2007; Reay & Hinings, 2005; Stryker, 1994). Another study by Fiss and Zajac (2004) examined how a variety of logics toward corporate governance drove a dramatic shift from a German style of accounting to the United States style of accounting. Lounsbury (2007) took the analysis one step further and demonstrated how competing logics caused variations in the practice and behavior of distinct groups of actors. He studied how mutual funds companies in Boston managed to maintain a focus on conservative, long-term investing and resisted the efforts of New York funds to push aggressive money management strategies. Demonstrating a different view from previous research, Reay

and Hinings (2009) asserted that collaboration among key actors was the key reason for how the two competing logics in the hospital industry were managed. (Reay & Hinings, 2005, 2009). This dissertation contributes to the literature of competing institutional logic by contributing to the understanding of how competing institutional logics shapes role identity at the individual level. It is possible that the way that identity was formed could be used as an extension for understanding how the competing logics are managed.

I focused on the statement made by a limited number of actors within the animation film field – 2D animators and 3D animators. A significant strength of the organizational field concept is that it includes many different types of actors and the relationships between them. However, I have limited my focus because of time and resource constraints. I suspect that attention to other studio-level actors such as directors and producers could offer new and important insights. In future research, I hope to broaden my investigations to include such actors, giving particular attention to the relationship between those actors and multiple co-existing logics. Since this research finding could be limited to specific industry setting, the animation film industry, a possible future research direction could be to examine whether different industries sharing similar research conditions could demonstrate the same results. I certainly encourage other scholars to conduct research in other settings that will confirm or extend my findings.

In conclusion, my study highlights the importance of considering micro levels of analysis in order to understand the phenomenon of competing institutional logic. Earlier research (Reay & Hinings, 2005) focused only on the field level and did not analyze the actor level. It was only by directing my attention to actors inside organizations that I could appreciate the resourcefulness, abilities and energies of

individuals to develop workable solutions in spite of competing logics at the field level. Institutional competition and the institutional work associated with it remain important and under-explained (Lawrence & Suddaby, 2006). I have had the rare opportunity to investigate one identity change process over a lengthy period of time, and to analyze events at the micro level. The complexities of institutional processes are reflected in my findings.

Appendices

Table 5. Fundamentalism Institutional Logics from 1991-2008

Fundamentalism	
Dimensions	Defining Characteristics
Style of Practices (Tools)	<p>Praise of hand-drawn style of animation.</p> <p>Described as laborious frame by frame hand-drawing work.</p> <p>Described 2D animation as colorful and up-beat musical.</p> <p>Laborious drawing style is still used by industry leaders.</p>
	<p>Exemplars from the data:</p> <p>But no one has yet created a character on a computer that moves and acts as naturally as a hand-drawn character. [The New York Times, 1991]</p> <p>The key, Mr. Lasseter said, is to concentrate on telling a good story and creating interesting characters rather than on showing off the computer's capabilities. "We really place the art form on animation before the technology," Mr. Lasseter said. [The New York Times, 1991]</p> <p>Goldman says Disney has been "playing with computers for 20 years and they still use some of that equipment from 20 years ago, so some of it doesn't marry well to the other equipment they're introducing today." But Coates points out that Disney still have formidable resources. "I think everyone sees great box office and thinks, Well, we're going to jump in there', but what they don't see is that Disney has some of the most talented artists in their field in the world and a storehouse of knowledge. The reason Disney keeps winning is that the company allows us the time to make sure our stories are strong." [The Times, 1998]</p>
Skills	<p>Skill of 2D animators is earned through life-time.</p>
	<p>Exemplars from the data:</p> <p>Disney is currently recruiting in London. But with CGI the main game in town, applicants don't necessarily have artistic and storytelling skills so much as they know how to operate animation software like Maya --- a skill that can be mastered in a couple years' time, as compared to the lifetime it took traditional animators to hone their craft. [Variety, 2004]</p>
Demands for animation	<p>Still demand for 2D animation film with great stories rather than technology.</p>

	<p>Exemplars from the data:</p> <p>Despite the lackluster box-office performance of "The Road to El Dorado," it's the most recent traditionally animated feature. "I actually think the appetite for traditional animation is greater these days". [Variety, 2000]</p>
Demands for animators	<p>Insufficient number of 2D animators.</p> <p>Layoff due to new technology caused tension between animators.</p>
	<p>Exemplars from the data:</p> <p>But talent remains a precious commodity, and the race by studios into film animation is already creating shortages of animator, whose salaries have soared by \$200 or more a week in the last year to an average of \$1,800 to \$2,200. [New York Times, 1994]</p>
Roots	<p>2D animation is described as renaissance of animation art.</p> <p>2D animators provide foundation and advice to 3D animation film.</p> <p>2D animation technique is basic and core to all animations including 3D animation.</p>
	<p>Exemplars from the data:</p> <p>As a result there are two kinds of animated films today: those made by corporations and those made by humans who love the art of animation. [The New York Times, 2004]</p> <p>Both Mr. Lasseter and Mr. Bird had the opportunity to work in hand-drawn animation (probably doomed to be known as 2-D animation) and clearly profited from the experience. [The New York Times, 2007]</p>
Recognition through Award	<p>2D animation is still dominating in awards.</p>
	<p>Exemplars from the data:</p> <p>An Oscar win in March by a traditionally animated film would infuse fresh life into the hand-drawn medium and ensure its continued existence. [Daily Variety, 2003]</p> <p>Katzenberg and Roy Disney, vice chairman of the board of the Walt Disney Co., were the first to receive the award, given for the studio's contribution to the renaissance of feature animation. The first studio to be so honored, Disney is enjoying a string of highly successful feature-length animated films including the Oscar-winning "Beauty and the</p>

	<p>Beast" and "Aladdin," which has become the highest grossing animated film in history and the highest-grossing film from Walt Disney Pictures. "It was just nine years ago that everyone in Hollywood was convinced that animation was dead. It was dismissed as nothing more than cartoons -- by everyone. That is, everyone except Roy Disney," said Katzenberg in accepting the award. [The Hollywood Reporters, 1993]</p> <p>Warner Bros.' "The Iron Giant" swept the 27th annual Annie Awards on Saturday night, taking home nine medals including one for outstanding achievement in an animated theatrical feature. [The Hollywood Reporters, 1999]</p>
Quality	<p>Hand-drawn animations produce high quality film.</p> <p>Exemplars from the data: The Walt Disney Company announced on Friday that it would cut about 160 of the 800 jobs at its Disney animation unit, suggesting that it would make fewer movies as it focuses on improving quality. [The New York Times, 2001]</p>
Responds to each other as competing mechanism	<p>Needs for less laborious hand-drawing works. Criticism about novelty and root about 3D animation technique. Effort to maintain 2D sprit among French artist. Trying new things (Techniques, coloring) to attract attention of audience. Criticism about quality of 3D animation. 2D animators stating that No domination in animation style (2D or 3D). Criticism about 3D animation (Art is people working). Needs for strengthening storyline emerged in order to compete with 3D animation film. Statement by 2D animator that 2D animation has become strong threat to 3D animation. Improving quality through job cuts. Success of 2D animation shows their survival against 3D films. 3D animation is not special anymore. Became alike. Should be able to tell stories without fancy image looking character and action.</p> <p>Exemplars from the data: "Animation isn't dead, not by a long shot," Mr. Goldman said. "And neither are we." [Variety, 2000] Disney also embraced a time- and labor-saving gadget called the</p>

	<p>Rotoscope, invented by his rivals the brothers Fleischer (Max and Dave). It enabled animators to trace over live-action footage and was a prototype of today's computerized Motion Capture, which tracks sensors attached to a moving body. [The New York Times, 1999]</p> <p>Mr. Judge is just as eager to disprove the studios' fears that hand-drawn cartoons are as dead as another "Charlie's Angels" sequel. DreamWorks certainly seems to think so. On Monday its animation director said the studio was giving up on traditional animation after its new release, "Sinbad: Legend of the Seven Seas," showed disappointing results at the box office. But, Mr. Judge said: "The public doesn't think like that. They don't say, 'I'd like to see some hand-drawn animation.' Or, 'You know, I'm in the mood for CG tonight.' Either the movie works or it doesn't." When "Beavis and Butt-head" became a hit, he said, "They all wanted to make a 'Beavis and Butt-head' movie, but nobody wanted to do it as animation." "They wanted to make it live action because the rule was, anytime you make an animated film and it's not a family film, it fails. [The New York Times, 2003]</p>
Goal	<p>Aim for longer showing period & plan for longer term</p> <p>Exemplars from the data: We know that classic animation will screen for a long time -- we don't look at anything in the short term," says creative director Kate Fawkes. [Variety, 1997]</p>
Market Performance	<p>Still making profit in the industry</p> <p>Exemplars from the data: Disney has had six consecutive animated hits since 1988, including "The Lion King," this year's second-biggest ticket seller and likely to be the biggest money-maker in Hollywood history, with more than \$1 billion in profits after licensing royalties and video sales are counted. [The New York Times, 1994]</p> <p>"We got blamed for 'The Road to El Dorado,' too," he added, pointing out a DreamWorks traditional-style animation that did poorly in 2001. [The New York Times, 2001]</p>
Valued	<p>Traditional way of producing is respected. Storyline is core for animation styles.</p>

	<p>Exemplars from the data:</p> <p>After the event, Warner Brothers held a reception attended by students with leopard-spotted hair, dangling shirttails and, most important, talent with a pencil. (Despite the recent success of the computer-animated "Toy Story," most artists at Cal Arts work with sketchpads, pencils and ink, doing animation much the same way it has been done since Mickey Mouse.) John Lasseter, the Cal Arts graduate who directed "Toy Story," was there basking in the adulation of faculty and colleagues. But he conceded he had also come to scout for Pixar, the company for which he works as vice president for creative development. "We're always looking," he said.[The New York Times, 1996]</p>
Threat	<p>The wane of 2D is due to rise in labor cost and 3D emergence</p> <p>Exemplars from the data:</p> <p>The wane in 2-D features can be traced back to the early 1990s, when the failure of a series of hand-drawn studio pics coincided with a rise in labor costs and major technology breakthroughs in CG. [Daily Variety, 2006]</p>

Table 7. Digital Impressionism Institutional Logics from 1991-2008

Digital Impressionism	
Dimensions	Defining Characteristics
Style of Practices (Tools)	<p>Praise of photo-realistic computer software style of animation.</p> <p>Described as cost and time saving production process.</p> <p>3D animation software has become tool for animators.</p> <p>Photo-realistic 3D animation is breathtaking.</p> <p>3D technology is essence of production process and replacing hand-drawn animator technique.</p> <p>Described 3D animation as colorful, bright, and funny.</p>
	<p>Exemplars from the data:</p> <p>Instead of the painstaking task of drawing and painting characters frame by frame, the technique perfected by Walt Disney in the 1930's and 1940's, animators are now doing just about everything with the click of a mouse -- melding hand-drawn characters into computer-generated backgrounds or placing lifelike animals made of pixels on the screen beside human actors. "It doesn't matter what style of animation it is, it has become a part of everything," said Jeffrey Katzenberg, a partner in DreamWorks SKG, which last year won the first Academy Award given for feature animation with the computer-animated "Shrek." Computer technology "is the essence of both the creative and production process of every movie," he added [New York Times, 2003]</p> <p>U.K. software company Cambridge Animation, will be developing an automated cel-animation system dubbed Digital Animation Dreammachine. When up and running in 1996, the system will allow computer animators to greatly speed up the cartoon-making process for full-length features. "These tools have become the artist's pencil and paper," said Katzenberg [Variety, 1995]</p> <p>"Today's audiences needed a step forward in visual splendor." Joe Pytko, the director of "Space Jam" [The New York Times, 1996]</p>
Skills	<p>Skill of 3D animation (using software such as flash, maya) can be mastered in four to five years.</p>
	<p>Exemplars from the data:</p> <p>Disney is currently recruiting in London. But with CGI the main game in town, applicants don't necessarily have artistic and storytelling skills so much as they know how to operate animation software like Maya --- a skill that can be mastered in a couple years' time, as compared to the lifetime it took traditional animators to hone their craft.</p>

Demands for animation	3D animation is the future of animation film.
	<p>Exemplars from the data:</p> <p>Mr. Lasseter had become intrigued with computer animation after working on "Tron," a Disney science-fiction film that used some computer-generated effects. "I said, 'This is it, this is where animation is going,' " Mr. Lasseter said. [New York Times, 1991]</p>
Demands for animators	Describing high demand of both 2D animators and 3D animators in 3D animations films.
	<p>Exemplars from the data:</p> <p>Tom Leeser, visual effects supervisor at Rhythm & Hues, which completed work on upcoming films "Batman Forever" and "The Babe," "There are more job opportunities now than there are available people, so we're going to see a big competition for talent. Anybody who understands computers in filmmaking is very valuable right now." [Variety, 1995]</p>
Roots	<p>There are worries that root is needed.</p> <p>Need for strong storyline.</p> <p>Foundation of animation is done by 2D animation technique.</p> <p>3D animation does not have novelty nor roots.</p>
	<p>Exemplars from the data:</p> <p>Whether digitally assembled or hand drawn, all animation starts with an artist's sketches and story boards. [The New York Times, 2004]</p>
Recognition through Award	<p>No awards for 3D animation but profitable.</p> <p>In 2001, 3D animation films are racing for Academy of Award.</p> <p>In 2004, 3D animation has been nominated for animation award.</p> <p>A separate award category is needed for 3D animation film.</p>
	<p>Exemplars from the data:</p> <p>Last year, the Academy of Motion Picture Arts and Sciences nominated three CGI-animated movies for best animated feature, and the pundits proclaimed the death of traditional animation. But those death notices were premature: The Academy's animation branch ignored such CGI boxoffice heavies as "Madagascar," "Chicken Little" and "Robots" in favor of Hayao Miyazaki's hand-drawn "Howl's Moving Castle," Tim Burton and Mike Johnson's stop-motion "Tim Burton's Corpse Bride" and Nick Park and Steve Box's clay-animated "Wallace & Gromit: The Curse of the</p>

	Were-Rabbit." [The Hollywood Reporters, 2006]
Quality	3D animations are gaining high quality of work.
	Exemplars from the data: "We're thrilled to death to have our own category," says Pixar's John Lasseter. "I completely understand that in the past there haven't been enough quality films (to warrant a separate category) but that's changed over the past few years with the growing number of films of high quality." [Daily Variety, 2001]
Responds to each other as competing mechanism	Competing against 2D animation in having a strong storyline, speed of production, producing realistic images. 3D animation contains more visual entertainment compared to 2D animation film. 3D animators states art and technology must co-exist. (Conferences). No domination in animation style (2D or 3D). 3D animation films are superior to 2D animation film in terms of bright colors and entertainment. 3D animator thinks whether 3D animation can compete with 2D animation.
	Exemplars from the data: Recognizing increased competition and on the heels of its animated film Oscar win for "Shrek," DreamWorks is building on its success by doubling its production capacity. [The Hollywood Reporters, 2002] For now, as "Curious George" director Matt O'Callaghan says, "Almost everything will be CG, except in rare cases when somebody steps up and has a strong vision for why the movie should be traditionally animated." [Daily Variety, 2006]
Goal	Expect to dominate future trend through technology.
	Exemplars from the data: Freeman's Entertainment Technology Group, the sessions and exhibits are designed to take professional artists and animators to the next level of technical expertise by with a special focus on new technologies. Dr. Ed Catmull of Pixar, a pioneer in this area who is responsible for the development of the Renderman technology and much of the theory driving the industry, will present his keynote address Feb. 19 on "The Changing Face of Animation." "We're integrating technology with

	<p>technique this year, offering some practical courses as well as the high-end tech stuff," says Jill Smolin, conference chair and manager of training and artistic development at Cinesite. "Art and technology must co-exist, and we've built the conference so that students in both disciplines can get a foundation in this industry." [Daily Variety, 1998]</p>
Market Performance	<p>In 2005, Market success of 3D animation. Return decrease due to more competition. Less expense on production cost.</p>
	<p>Exemplars from the data: According to Steve Jobs, chief executive officer of both Pixar and Apple Computers, Toy Story generated "\$ 500 million in profit". [The Times London, 1998] From 2003 to 2005, there were just a dozen CG-animated releases, less than 1% of all major releases, but they accounted for 7% of all box office grosses. [Daily Variety, 2005]</p>
Valued	<p>Release of 3D animation means very important and represent identity. 3D animation brought process innovation to industry. Storyline is core for animation styles.</p>
	<p>Exemplars from the data: With the current boom in animation -- ranging from the innovative techniques used in "Roger Rabbit" to the enduring popularity of classics like Disney's "101 Dalmatians" -- studios are paying more attention to all of its forms, including computer technology. [The New York Times, 1991]</p>
Threat	<p>3D animators acknowledge that there are still technical and cost uncertainties to sustain computer animation.</p>
	<p>Exemplars from the data: Pixar executives acknowledged that there are still technical and cost uncertainties in trying to sustain computer animation for a 75-minute film. And no one really knows how audiences will react to a full-length film in a new medium. [The New York Times, 1991]</p>

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