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Disjointed Innovation: The Political Economy of Digitally Mediated Institutional Reform

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This paper connects important debates in institutional analysis with IT and politics. Why is there so little attention to long-term institutional developments related to information and communication technologies (ICTs), including social media, in strategic public management? I argue that there is much more continuity and gradualism in institutional developments related to e- or digital government than researchers have recognized or conceptualized. Further, I argue that neglect of temporal dimensions and the mechanisms by which institutions change in studies of strategic management in e-government impoverish the field and distort conceptualization and the specification of models. The key argument of the paper is that so-called disjunctive technological change does not lead directly to disjunctive institutional change (although it may do so at times). Moreover, failure of researchers to examine mechanisms of institutional stability and change in the context of technological change of the sort studied in e-government has led to mis-specified and decontextualized models overly reliant on technology as a driver of change.

It is commonly observed that although ICTs may be new in public organizations bureaucracies continue “to do their thing.” But if researchers probe carefully at underlying mechanisms and processes, it is clear that institutional development in digitally mediated institutions differs systematically and importantly from development in those settings where digital information and communication systems do not play a major role. It is not the case that in spite of innovative technologies, bureaucracies continue to behave *exactly* like bureaucracies (with the implication that, therefore, institutional effects of digital technologies either don’t exist or are inconsequential). The second major argument of the paper, therefore, is that digitally mediated institutions exhibit some dimensions that make them different from institutions without considerable cyberinfrastructure. These dimensions include: the sunk costs incurred in the development of large-scale technological systems in public organizations; the rigidity of most ICTs – interfaces, systems architecture, code, digital systems generally; the pressure such systems put on decision makers to re-engineer and to re-structure to optimize digital means; and network dimensions including the need for interoperability among all organizational actors in order to gain coordination benefits and the power of focal points--and convergence on them even when such focal points represent suboptimal decisions.¹

Public organizations have been increasing their use of information and communication technologies, including social media, for decades often with important strategic management effects on operations, structure, administrative processes, staffing, boundary spanning, and, in some cases, on mission, scope and objectives. Most public management studies ignore technology altogether. Yet most studies of e-government or ICT-related institutional developments focus on or assume disjunctive change.² Often “transformative” change is

¹ Additional important dimensions of digitally mediated institutions must lie outside the scope of this paper. These dimensions include: increased transparency, increased interaction with the public, use of social media to cross formal boundaries.

² There is a strong desire for public organizations to be innovative, flexible, etc. Implicit in these forces is a claim that the past can be ignored, overcome, overwhelmed by new ideas. This claim is intensified greatly in the case of e-public organizations or when information technologies or, more recently, social media are invoked as agents of change or the basis of innovation. Here the past, in the form of outmoded bureaucratic cultures and structures is

invoked to capture the seemingly “limitless potential” of the Internet and web, echoing IT industry and popular management hyperbole. In other cases, the IT project becomes the unit of analysis or the time delimiting focus of study. But neither of these two approaches – disjunctive or project-based change – capture the long-term developments occasioned in nearly every case of public organizations using ICTs. The Internet and web are now nearly two decades old and institutional developments related to their use may be studied over the long term, taken here to mean a decade or more.

The costs and benefits of information and communication flows and dimensions of all kinds have shifted, creating political changes. But this does not mean that politics itself or individual and group preferences and power struggles have changed in their fundamental nature. It is simply that the terms of contest and the tools with which contestants might engage have changed. Traditional interests in power have not waned or somehow transcended traditional bases of contestation. These distinctions between technology-enabled structural and processual change and the enduring nature of politics, however, continue to be blurred and confused.

Recent research in political science, sociology and anthropology on institutional development and change, and applications of this stream of research in public management, have focused on mechanisms underlying long-term institutional change including path dependence and positive feedback; coordination models and their role in overcoming collective action problems; long-term patterns and mechanisms of institutional development; and political effects of public policies where policies may be considered institutions. In this paper, I briefly review some of the most important lines of theory and research for public management of temporal dimensions drawn from several disciplines. I extend them by highlighting the role of *digitally mediated* institutions. I illustrate a subset of these temporal dimensions in an institutional analysis of the development of a highly digitally mediated public organization, the European Commission Office of Harmonization of the Internal Market, and its development of public services related to the Community Trademark and its networked relationship with national trademark offices in Europe. The case serves to illustrate the potential usefulness for digital governance studies of longer term institutional perspectives that explicitly conceptualize temporal dimensions.

Overall, this paper is meant to build greater theoretical specificity and explanatory power into institutional research in digital governance. It is meant build on the observation that the Internet, web and associated technologies are now nearly two decades old and that, as a consequence, many governments have two decades of digitally mediated institutional developments that may

“blown to bits” or broken through or otherwise utterly destroyed. These are false notions and they lead public managers astray by treating exogenously some core variables in crafting and leading change and organizational reforms and institutional developments.

Neglect of institutional variables may also reflect the base of many e-government studies in fields outside the social sciences. This may be because of links to information science and MIS in which social variables are neglected or simplified. It may be because of the domination of industries – IT and professional services – that focus relentlessly on the new and convincing decision makers that they must purchase the newest technologies and systems. It may be because innovation and hyperinnovation seeks to “free” organizations from their past, to approach development as if the organization were a start-up – to break out of path dependence and institutional inertia, particularly in public organizations.

be plumbed by political scientists to examine long-term institutional stability and change -- even in the digital age.

While digital governance focuses predominantly on service provision and digital tools, this paper, by contrast, focuses on institutional development. I define the term, "digitally mediated institutions" as those political institutions that use a portfolio of digital information, systems and tools internally and across boundaries. This term is meant to draw attention to the inextricable interconnections among digital, political and institutional developments in governance. During periods of economic scarcity, crises may create openings for institutional developments that might not otherwise prove politically feasible. State actors might find Internet related investments out of reach or, by contrast, they may seize on development and adoption of "new" digital tools (including social media) to meet challenges. In addition, states might use institutional development to make more effective use of digital systems and tools already procured. It is these longer cycles of digitally mediated institutional development that are the focus of this paper. Thus, economic hard times may prove salutary for moving institutions forward to innovate and to bring organizational and administrative processes into better alignment with digital capacity notwithstanding tightening of budgets.

Recent institutional perspectives complement networked governance approaches well. The mechanisms of institutional development in multi-level governance are poorly explicated by social and political scientists. A clearer understanding of the political implications, policy feedback and interest group effects related to digitally mediated institutional development and change holds promise to shed light on promising paths for politically feasible and desirable development.

Digitally Mediated Institutional Development over Time

Institutionalists have always been concerned with time and its role in institutional development. During the past few decades, new institutionalists of various kinds have incorporated temporal variables into conceptual models. Mapping broad lines of theory and research while omitting several important articles: In 1985, Evans, Rueschemeyer and Skocpol in *Bringing the State Back In*, implicitly invoked time in their conceptualization of states as institutional actors constrained by decisions and policies made in the past. In 1990, Douglass North in *Institutions, Institutional Change and Economic Performance*, argued for incorporating institutional analysis into economic history, in part, by considering temporal variables related to transaction costs and evolution. In 1991, Powell and DiMaggio in *The New Institutionalism in Organizational Analysis* brought together a range of research in economic sociology (new institutionalism in sociology) which has conceptualized among other foci the development and dissolution of organizational fields and institutions at macro, meso and micro levels as sources of persistence in organizational life. In 2004 Paul Pierson in *Politics in Time: History, Institutions and Social Analysis* synthesized a range of conceptualizations developed by historical institutionalists working in comparative and American politics incorporating time. Also in 2004 Kathleen Thelen in *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan* sought to counter excessive reliance on punctuated equilibrium models as bases for institutional change by demonstrating, in part, the ways in which gradual changes during periods of putative stasis often lead to transformative change and the ways in which institutions exhibit

resilience in the face of external shocks. In 2008, Christopher Pollitt in *Time, Policy, Management: Governing with the Past*, summarized a range of social science research on temporal dimensions of institutional development to grapple with notions of time in the context of public service organizations and their management examining temporal dimensions “in the form of laws, inherited political relationships, inherited management systems and inherited attitudes and cultural norms, both expert and public.” In 2008, David Singh Grewal in *Network Power: The Social Dynamics of Globalization* examines institutional development over time and in networked systems as a way of explaining globalization processes.

Yet institutionalists and public management researchers drawing from a wealth of institutional perspectives have still not well connected temporal and institutional dimensions with the adoption and implementation, what I have called “enactment,” of new information and communication technologies, including social media, in public organizations and management. This paper is an effort toward filling that gap.

Focal Points in Digitally Mediated Institutional Networks

Conventions develop when actions are interdependent, when coordination is needed and when actors consent to a behavior, a process, in short, a standard in order to overcome coordination problems and share benefits. Conventions exhibit positive feedback as each actor develops and acts upon mutually reinforcing expectations that others will follow the convention.³ The payoff structure is such that benefits accrue only if all follow the convention. Thomas Schelling (1960: 53-118), followed by other students of “coordination games,” argued that actors often choose a “focal point” as their convention. The notion is meant to evoke “salience”--or prominence or conspicuousness--as the chief criteria for selection rather than the outcome of calculation or strategy. For example, at the APSA annual meeting, many colleagues will meet at the APSA registration area. This area may not be the optimal meeting place in terms of distance or proximity to cafes or seating areas, but it is well known and easily understood -- in short, a focal point upon which agreement is likely and easy to achieve. Elster (1989: 12) notes that conventions need not be optimal: “... it is important to have one, but it does not matter which it is.”

Digital technologies force focal points and standards in order to gain benefits from coordination that are stronger than other forms of coordination due to shared data and communication channels; they have large sunk costs; they are rigid and inflexible over and above inflexibilities introduced by path dependence; they are poorly understood thereby leaving expertise and considerable decision making power to “peripheral” players with agendas outside those of the core interest groups involved.

Grewal argues that “The analysis of conventions is obviously relevant to a discussion of standards, which are forms of conventional equilibria. However, the idea of network power focuses less on settled conventions than ones emerging due to a combination of extrinsic and intrinsic reasons. Therefore, it emphasizes the positive feedback dynamic central to the

³ Grewal (2008) examines the philosophical and economic underpinnings of focal points, or conventions, drawing from several sources.

interdependent action that drives the adoption of one convention rather than another."⁴ In digitally mediated institutional environments, the drive toward interoperability and the gains from it combine with social and political drivers toward conventions to overcome other types of coordination problems. These interconnected but analytically distinct mechanisms shed light on the conceptual power and importance of examining digitally mediated institutions as a distinct class of entities within institutional development. As Grewal notes: "... 'network effects' or 'network externalities' [are] really nothing more than the common reliance by members of a network on a conventional standard, making its adoption advantageous and deviation from it costly." (p. 63)

Let's return to the political dynamics of institutional development over time. Pierson notes that:

Actors are better off if they have reliable expectations about the behavior of others. Institutional choice, in these models, is seen as primarily a matter of actors converging on a focal point that solves their coordination problems. These actors may disagree about the 'best' outcome, but they are eager to reach a shared understanding. Even coordination around some less-desired outcome is often better than no coordination at all ... In these accounts, once institutions have been selected, they have considerable staying power because of the difficulty of coordinating around an alternative." (2004, p. 118)

I argue that these dynamics of focal points and path dependence are heightened when political, economic, cultural and *technological* processes are considered together in institutional analysis.

Grewal examines the logics of focal points in detail and then applies these logics to the invisible but powerful drive toward international standards, a myriad set of political activities underpinning globalization.⁵ The attractiveness of focal points as solutions to coordination problems underlies the drive of decision makers in digitally mediated institutions towards the coordination benefits, or network externalities, that derive from agreement upon shared standards. I argue in this paper that the added impetus toward attaining agreement on *digital* and related ICT standards in order to gain the considerable benefits of interoperability across organizations and states is a critical additional independent effect of information and communication technologies over and above other institutional means for resolving coordination problems.

Parenthetically, as this paper is being written, the G8 is considering a range of Internet policies, concerning privacy, censorship, copyright protections, and other international agreements that would provide "focal points" for coordination across countries. The psychological dynamics involved in reaching agreement are apparent in news accounts and in interviews with policy leaders who seek overall guidance and rules for decision making in light of new possibilities for information and communication flows enabled by ICTs. I invoke this example because of its visibility in the news. This paper is more concerned with less visible focal points or coordination devices that become points of agreements across public organizations.

⁴ *Ibid.*, p. 63.

⁵ *Ibid.*

Positive Feedback and Path Dependence in Political Institutions

Long-term institutional developments are not simply influenced by the political environment and by the contemporaneous choices of individual and collective actors, they are deeply influenced by their past. Path dependent models tend to exhibit positive feedback loops. That is, when early events--possibly caused by accident or chance--influence subsequent decisions, a path is laid whose retention becomes more attractive as its effects accumulate over time. Arthur (1994), David (1994, 2000) and, for political science, Pierson (2000, 2004) have demonstrated the usefulness and applications of path dependence and positive feedback across a range of social phenomena. Path dependent processes exhibit unpredictability because of the strong effects of early events; inflexibility with respect to breaking out of a path once it has "locked in;" "nonergodicity," meaning that early random events in a stream do not necessarily function as noise because of their import later in the sequence; and, not least, the potential for producing inefficient paths because suboptimal solutions or arrangements may be reinforced and difficult to change. As Pierson (2004) observes: "... early steps in a process may fundamentally restrict the range of options available at later ones; identifying the mechanisms that generate such constraints can be a source of powerful insights into the determinants of institutional change ..." (p. 134) Thus, a long term view allows researchers to trace institutional -- and digitally mediated- - developments as they unfold through time and taking account of potentially powerful early events and their influence.

While theories of technology development and innovation have considered path dependence for some time, they have tended not to consider path dependence *in the context of politics*, a context essential for the study of public management and organizations. Research on path dependence in politics considers structural differences between markets and politics (many of which were articulated by Lindblom 1977) and relates these differences to the ways in which path dependence and positive feedback play out in political settings and behavior.⁶ Politics differs from markets in fundamental ways that have implications for institutional life. Institutional behavior in political environments typically necessitates *collection action* rather than individual action, the structure and characteristics of which are significantly different from one another. The use of *authority* through formal institutional roles, public policies and legislation sets politics apart from markets, which operate through exchange. Because of the lack of markets to coordinate behavior in politics, institutional means of coordination, often using authority, are required. Unlike market-based behavior as portrayed in neo-classical models of choice, political actors routinely *adapt their expectations and behaviors* to political rules and decisions. Lindblom's notions of partisan mutual adjustment and quasi-resolution of conflict capture the incremental, negotiated nature of these constructions. Political life is carried out in *complex institutional environments* that are only poorly conveyed by terms such as "networked governance," "multi-level governance," or "joined up systems" let alone by reference to arenas or

⁶ This section of the paper draws substantially on Pierson's excellent syntheses of temporal dimensions of politics and institutional development (2000; 2004).

playing fields or, worse, to self-organizing systems. Unlike markets, many institutions are connected by formal ties rather than simply by contracts and informal commitments.

Digitally mediated institutions and policies exhibit many dimensions of path dependence in technological development. In addition, these dynamics are intertwined in complex ways with positive feedback and path dependence in politics. This intertwining helps to answer the question: What difference, on net, does technology make in government? Coordination effects, behavioral and expectations effects, uncertainties, sunk costs, and learning associated with new technologies--even when technological systems are embedded in political institutions--complicate and intersect with political mechanisms in institutions.

Long-Term Institutional Development

Historical institutionalists have emphasized the importance of timing and sequence in societal and political development. Analyses that neglect timing and sequence ignore the unfolding of events, the importance of when something happens in relation to other events and the critical role of sequencing in political institutions. Fernand Braudel (1992) emphasized the importance of the long view. In his masterful detailing of industrialization across countries he focused on key differences in the timing and sequences involved in industrialization within and across countries to account for variation in the trajectories and political challenges faced by various countries as a consequence of technological change. Daniel Bell (1973) invoked timing and sequencing as critical variables to explain long paths in post-industrialization. These important issues of timing and sequence are often ignored in digital governance research.

Connecting *the specific mechanisms by which long-term effects occur* is necessary to specify institutional and political developments through time with sufficient precision to allow comparison across cases. Pierson (2004) synthesizes across a range of institutional perspectives to detail four mechanisms that underlie long-term processes of change: incremental cumulation; threshold effects; causal chains; and slow-moving outcomes. Daniel Bell traces, for example, slow moving shifts in technologies to explain core underlying causes of political change. He emphasizes the accumulation of changes rather than discrete change at any one point in time. In some cases, changes that proceed slowly culminate in rapid, disjunctive transformative events. Douglas McAdam follows the decline over time of the economy for cotton and links this slow-moving change to the "threshold" reached, with many other related processes, to lead to the Civil Rights Movement. Causal chain arguments link together multiple, independent processes over time whose often complex intersections lead to critical political choices. Although Pierson argues that these mechanisms and processes may be specified sufficiently to allow comparative research, historians argue for the uniqueness of such processes and their intersections. Examination of slow-moving outcomes shifts attention to the dependent variable to observe that outcomes may not reveal themselves all at once. For example, Richard Nelson has described replacement processes that play out in evolutionary patterns over long periods. Hannan and Freeman, with other population ecologists, trace the births and deaths of organizations to portray long sweeps of development and decline in industries and fields.

Digitally mediated institutional development in politics holds promise for examining long-term processes of many types from the changing nature of citizenship to replacement processes related to several core political phenomena including campaigning, mobilization, territoriality, and privacy.

Institutional Change and Stability

Institutional Change

Institutionalists in political science and sociology have long posited that due to the stability and durability of institutional forms and arrangements, institutions change only when external shocks force change.⁷ They have conceptualized change as punctuated equilibrium, thus maintaining neo-classical perspectives on equilibrium while incorporating a theory of disjunctive change. In this view, during punctuations, openness to innovation and change results in rapid developments, which are then followed by long periods of institutional stability or "inertia." (See, for example, Krasner 1988.) Other lines of inquiry have focused on a more complex interplay between agency and structure in institutional development, particularly on the possibilities for the agency of political or policy entrepreneurs at critical "choice points" or "critical junctures."⁸

A growing number of researchers focus on how institutions develop over time.⁹ By contrast to models emphasizing disjunctive institutional change, and based on a detailed and long-range, empirical study of vocational training in Germany and skills development policies in Europe, Thelen builds a strong argument for the predominance of institutional change as *a process of mobilizing support* among social and political actors to construct, revise, or sustain specific institutional arrangements" [my emphasis]. Carpenter (2001), working in American political development, yields similar findings along dimensions of agency, political mobilization and institutional development. Pollitt (2008) examines the challenges of identifying punctuations versus oscillations within a path. Thelen argues, by contrast to punctuated equilibrium models: "Institutions are not ... subject to periodic renegotiation (in the context of historical 'breakpoints'), but are the object of ongoing political contestation." Moreover, she documents and explains ongoing political tension and contestation during putative periods of institutional stasis as well as the ability of institutional actors, or policy entrepreneurs, to weather critical,

⁷ I want to build on lines of theory and research in political science, and apply them to public management, in order to focus on political behavior (including public management) in public organizations. Organization theory, primarily the province of sociology, provides a more fully developed base for theory and research on institutions, particularly with respect to micro dimensions and pre-rational behavior. These streams of research are well known to the author. Here I seek to develop a line of argument for public management, in the political tradition, in order to explicitly work in political contexts and to draw from empirical research conducted in political institutions on political actors. The paper also seeks to align digitally mediated political institutions and their study with the institutional perspective in political science to further integration of the subfield of digital governance into public management and institutional analysis.

⁸ Among a wide range of precursor studies, see, for example, Katnelson, 2003; Thelen, 2004, 2006; Orren and Skowronek, 2004, who focus on political analysis of "critical junctures" and their role in institutional development in politics; and drawing from anthropological theories, Swidler, 1986.

⁹ Among a wide range of studies, see Thelen, 2004, 2006; Pierson, 2004; Grief and Laitin, 2004; Clemens and Cook, 1999. In public management studies, see Pollitt, 2008.

disjunctive change and to preserve or renegotiate preferred institutional arrangements. These are important lines of argument for public management because they focus on political mobilization as a source of change rather than punting to “structural change” without examining underlying political behavior of public managers and other key actors.

I argue that digitally-mediated institutional developments are more often characterized by long-term developments of the sort described by Thelen than they are by disjunctive change, even when disjunctive technological innovation has taken place. Institutional structures and processes, including institutional identity and culture, blunt the force of disruptive technological change and absorb technological innovations in distinctly institutional ways through processes of collective action, mobilization of support, and other political processes of mobilization. (Note that researchers of evolutionary and adaptive models of institutional change in the face of technological innovation use the term “absorptive capacity” to examine how quickly and in what ways organizations adopt, explore and exploit new technologies. Although this concept is distantly related, it is not the concept I develop here.) For students of digitally mediated institutional developments, the trope of disjunctive change due to technological innovation might be usefully complemented by theories of ongoing institutional development that are explicitly attentive to political constructions, policy entrepreneurship, mobilization of support and the ongoing nature of political conflict in institutional contexts.

Pre-rational Institutional Choice

Institutional theories in the sociology of organizations have long countered rational choice models of institutional development by reference to social constructionist and bounded rationality perspectives. In these perspectives, actors are often uncertain about the best course of action (or even uncertain about their interests or preferences). Relationships between political means and ends are less clear than portrayed in neo-classically based models of choice. And motivations for decisions other than maximization of benefits are important. In this view, logics of appropriateness, mimetic forces, desire for legitimacy and other motivations underlie decision making in complex organizations.

Rational choice models of institutional development tend to rely on agentic functionalism by which institutional development is explained as the result of individual and collective choices made by actors who seek benefits by fashioning institutional designs. Choice-centered accounts of institutional development may miss variables of importance that are visible only through longer term, temporally based explanations. Tracing institutional developments through time allows researchers to account for potentially important issues including changes in the social environment that might affect actors’ interests or the fit of an institution with a given environment. Unanticipated consequences of previous decisions or actions may only play out over time. Sources of institutional inertia or resistance to political efforts at change may be discernible only when activated. Finally, institutional change often results from learning and adaptation to external pressures.

DiMaggio and Powell developed a widely used account of structural isomorphism to explain how organizational actors in similar institutional environments, i.e., in organizational fields,

often used pre-rational means of decisionmaking, following the lead of those organizations with resources, with normative power or standing, or otherwise deemed to be imitated. While these choices might be strategic, they are not based on calculation as formulated in rational choice perspectives. Such cognitive heuristics lend theoretical rationales to the homogeneity of organizational forms and practices documented by many observers, to clustering along institutional dimensions and other outcomes that defy rationally efficient calculative outcomes and resemble satisficing or sheer mimesis more than maximization. (DiMaggio and Powell, 1983; March and Olsen, 1989; Powell and DiMaggio, 1991). It is reasonable to expect that mimetic forces drive many institutions to adopt new technologies to appear modern, to satisfy donors or other external overseers, or to be able to connect in an increasingly connected, networked world.

When political actors exercise choice in decisionmaking processes, they often are unlikely to be able to consider or account for long-term political developments and the action-reaction cycles, an oversimplification in itself, following any important political decision. Thus, institutional developments followed over any extended period evince many unanticipated effects. The technology enactment framework notes the importance of such effects (Fountain, 2001). Yet the technology enactment framework does not specify the precise mechanisms and processes by which those effects would be produced through the mediating role of organizational and institutional processes. It is to these processes that this paper is oriented. Cognitive and calculative limitations of individual and collective actors, interdependence and social complexity, dynamic institutional environments give rise to a range of unintended consequences of institutional design. All of the above argue against the primacy of rational choice models of institutional design as the sole source of explanation for institutional development. When political actors are constructing narratives and choices regarding the Internet, digital information and other emerging phenomena their choices may resemble leaps off a cliff much more than the considered results of careful analysis even when documented costs and benefits are produced to provide the cover of legitimacy and to satisfy overseers.

By focusing on choice and downplaying an array of mechanisms and tendencies including long-term processes and path dependency, rational choice theories of institutions tend to view political institutions as much more plastic, or malleable, than most empirical accounts warrant. For this reason, some political choice theories argue that institutions are epiphenomenal, that is, that they are the resultant of decisions made by political actors. If this conception were valid, one might expect to see much more change in institutions than is commonly observed.¹⁰

Yet institutions are remarkably durable and stable. Pierson uses the term "institutional resilience" to denote stability as well as the ability of institutional actors to fend off change efforts. But the positive connotation of "resilience" leads me to reject this term in favor of those synonyms of inertia that lack a functionalist ring. Institutionalist accounts of stability and change have focused on the role of those actors who have lost political battles and their role as catalysts for institutional change. (See, for example, Clemens and Cook, 1999; Clemens, 2002; Thelen, 2004.) Others have highlighted the importance of interactions among multiple institutions, sometimes complementary and at other times in conflict or tension, as precursors of institutional

¹⁰ I acknowledge and follow a line of argumentation in Pierson 2004, in particular chapters 4 and 5.

change that often produces unanticipated results (Orren and Skowronek, 2004). Still other lines of inquiry have examined policy entrepreneurs whose political skills and position in and across social networks allow them to articulate a new vision and to mobilize support among key actors who can then press for institutional change (Burt 1995; Padgett and Ansell 1993; Clemens and Cook 1999; Schickler 2001; Clemens 2006).

Still other models articulate conceptions of institutional development that specify identifiable processes of change including "layering, functional conversion and diffusion" (summarized by Pierson 2004: 137ff). Thelen (2004) described layering as "the partial renegotiation" of institutional mechanisms or processes in situations when actors either lack power or cognitive ability to comprehensively reassemble and reconstitute a bundle of institutional dimensions. Political researchers have often noted the patchwork, sedimented quality of institutional processes and rules as partial changes and adjustments are layered on top of existing, pre-existing rules. This layering and its political effects are discernible when traced through time.

Policies may catalyze new political actors bringing them into the constellation of interest groups who seek to influence policies or to gain resources from them. New actors may not simply be coopted but may bring new roles to the policy domain. Schickler, in a detailed study of institutional change in the U.S. Congress, used the term "disjointed pluralism" to conceptualize "institutions as multilayered historical composites that militate against any overarching order in ... politics." Schickler argues like Thelen that political actors "layer," that is, they "add new institutional mechanisms without dismantling preexisting institutions and without rationalizing the structure as a whole." This layering results in a sedimentation of rules, processes and other institutional arrangements that are "more haphazard than the product of some overarching plan" (Schickler 2001:15-18, cited in Pierson 2004; King 2002).

Thelen argues that "feedback effects set in motion by the operation of one set of institutions affect neighboring realms in ways that stabilize those institutions" (2006). She argues that continuities in institutional development exist alongside contestation and discontinuities. Her model is in contrast to institutional development models that portray sequential or alternating periodicity between change and stasis. Thelen claims that political contestation and negotiation are ongoing in institutionally complex political environments yet rarely reach levels of revolution or disjunctive change.

The Political Effects of Digitally Mediated Public Policies

Public Policies as Institutions

We turn now to public policies as institutions. The argument runs as follows: institutional theories often consider institutions as bundles of rules or rule regimes. Public policies, often made by institutions, implemented by them and administered through institutions bundle similar rules. If one accepts this logic, then many of the recent findings summarized above regarding institutional developments might usefully apply to public policies. Similarly, recent research on the political effects of public policies might inform institutional analysis in political environments.

In an essay entitled, "Public Policies as Institutions," Paul Pierson (2006) argues that there are sound reasons to treat public policies as institutions. "... [S]uch a formulation can foster interest in policy effects." "At the same time, it provides a basis for extending many of the arguments about institutional effects to the examination of policy effects," a turn of importance to public management researchers. Pierson concludes: "Most of the politically generated 'rules of the game' that directly help to shape the lives of citizens and organizations in modern societies are, in fact, public policies." Here Pierson refers primarily to social policies and a range of regulatory and finance policies. In this paper, I explore the applicability of this line of reasoning politically mediated public policies, that is, those policies that either have a strong technological element to their implementation or purpose or that are developed and implemented within digitally mediated institutions.

We are not interested in formal institutions in this area of analysis, but in institutions as systems of rules. Douglass North has defined institutions as " 'the rules of the game in a society or, more generally ... the humanly devised constraints that shape human interaction.' " (p. 115). Pierson writes: "For the individuals and social organizations that make up civil society, public policies are clearly very central rules that govern their interactions." He continues: "Leaving aside the informal institutions typically explored by sociologists, the institutions that impinge on the modern citizen most directly and intensively as she goes about her daily life are in fact public policies, *not* the formal political institutions that have preoccupied political scientists." He argues: "If policies as institutions matter for political scientists, it is because the influence of policies on social actors--on who they are, on what they want, on how and with whom they organize--is such that it changes the way these actors engage in politics." (p. 116)

Some researchers have argued that since policies are plastic--easy to change--it logically follows that they, like institutions, are epiphenomenal. In this view, it is argued that institutions are plastic because they merely reflect the outcome of political negotiations and contests, thus rendering them and their effects epiphenomenal. Institutions, to be causally significant, need some staying power. As Hannan and Freeman observed in their account of the reasons for the isolation of organization theory from sociology: "The fifth source of isolation was the failure of organization theory to take inertial forces into account. Structures that adapt swiftly and effortlessly are unlikely to shape processes of historical change ... If organizations are plastic, then only the intentions of organizational elites matter. In other words, failure to acknowledge the strength of inertial forces and conceiving of organizations as simple tools are two sides of the same coin." (1989:21).

Policy Structures as Focal Points

Policy structures often function as focal points as political actors converge on processes, language, or other dimensions of a policy to stabilize expectations when political actions are interdependent. It may be that digitally mediated policy structures possess added inertia as well as opportunities to serve as focal points. First, sunk costs are greater for complex software and hardware systems making change costly. Such systems are opaque to most decision makers. They are expensive to develop and maintain. A focal point solves these problems. Second, technological logics, which stem from engineering and socialized into engineers, software specialists, and those who build and maintain such systems lead them to anticipate

standardization and convergence as "efficient" solutions to coordination. Third, the attractiveness of interoperability extends beyond inside political actors to actors in civil society -- the users of such systems, citizens who may be able to gain access, information and transparency through such interoperability.

Policy structures, once in place, influence the preferences and influence of political actors. By contrast to coordination effects, which emphasize transaction costs, the shift that policy structures may induce is deeper. That is, the preferences of actors may shift around a policy structure making changes in the structure not only inconvenient but also politically disadvantageous or logically implausible or illegitimate. Pierson (2006) notes: "By altering incentives and resources among social actors, public policies can profoundly alter the political terrain over time ... What changes are not just actors' expectations about what is possible but also the kinds of actors that are around, their capacities, and their policy preferences."

Public Policies and Political Effects on Interest Groups

The institutional tradition in political science has long recognized that policies have politics. E. E. Schattschneider's 1935 study of tariff policies argued that "new policies create a new politics." Theda Skocpol (1992) and others (e.g., Heclo 1974; Mettler and Soss 2004) have made seminal contributions to our understanding of policy feedback as part of broader contributions to our understanding of state structure and capacity. Skocpol coined the term "policy feedback" to point to how "policies, once enacted, restructure subsequent political processes." Skocpol noted two types of feedback effects. New policies affect state capacity through restructuring or reinforcing administrative arrangement and policies exert influence on the capacity of social groups as well as more deeply on their goals and identities. For Skocpol, timing and sequence are critical to the politics created by policies. In a comprehensive review, Mettler and Soss trace three longstanding lines of research regarding the political origins of policy feedback in political science. The first line of inquiry focuses on the ways that policies influence the "political interactions of organized interests and policy makers." The second stream highlights the effect of public policies on the "beliefs, preferences, and actions of diffuse mass publics." The third research focus examines how "public policies affect the depth of democracy, the inclusiveness of citizenship, and the degree of societal solidarity" (Mettler and Soss, p. 60).

The technology enactment conveyed only a broad claim that variables related to organizations and institutions play an important mediating role in the design, implementation and use of ICTs in political institutions. Technology enactment was also meant to convey the political environment, including but not limited to bureaucratic politics that markedly influences digital governance in ways that are not captured outside of political science theory and research. This latter point is important because studies of technology use based primarily in social constructivist approaches has tended to oversocialize key actors, to neglect collective action, and to discount agency, particularly political interests and agendas.

Interest groups are substantially shaped by public policies. Public policies structure incentives. They specify channels, modes of interaction, language and framing of issues, and modes of evaluation and compliance. Policies offer resources to those individuals and groups who meet

requirements. They channel and provide (and obscure) information and administrative arrangements that make some modes of political activity easier and more productive than others. Considering digitally mediated policies, it may be that ICTs affect the shape, content and administrative mechanisms of public policies, which, in turn, affect collective action.

Public policies have the capacity to influence the population of social actors. Policies create environments that affect the survival rates and health of actors by fostering some actor characteristics and prohibiting others. For example, digitally mediated policies that require action using the Internet assume connectivity and basic digital literacy. They reduce the population of social actors those with access and skills for such interaction. Financial transactions conducted digitally exempt social actors without bank accounts and without digital means to conduct such transactions. In development studies and in comparative politics it is clear that countries without access to globalized digital systems face huge disadvantages in trade, economic development. These prohibitions include individuals in advanced industrial nations as well as developing countries without telecommunications, banking and business infrastructure adequate for such transactions. Policy domains affected include trade and finance, banking, imports and exports, transnational economic development, shipping and other transportations modes that cross international boundaries and require customs and other processing that has become highly digitized in advanced systems. Domestic employment patterns are significantly affected by digitally mediated policies because only those individuals with requisite education and skills will be hired and remain competitive in such environments.

Policies may alter the preferences of social actors as they shape the political landscape by altering costs, benefits and vehicles of and for courses of action and political behavior. Public policies often shape the development of social capital by providing direct incentives for partnerships and through the brokering and convening roles of policymakers and civil servants (Fountain 1998). Further, policies may influence the goals of social actors as well as their "logics of appropriateness" and sense of the possible.

Digitally Mediated Institutions

Digital systems and applications exert direct effects on political institutions through the powerful effects of digitization on information, communication and control. For example, they provide institutions with the possibility to streamline administrative and decision making processes (this category includes a large, varied set of developments, including cognitive, identity, cultural and operational with important political dimensions); to put information online to increase transparency, interactivity, access and possibilities for crowdsourcing to generate improvements; to put information and tools online to increase access and interactivity to citizens, mass publics and interest groups; to connect to other institutions and organizations making networked governance or multi-lateral governance not only feasible but desirable for the obvious benefits that follow from such connections. These direct effects are well known and moderately well researched.

The subject of this inquiry is not the direct effects of Internet and associated innovations on institutions, but indirect effects that are influenced by and influence institutional development

and change. While researchers have noted the importance of co-evolution, the interplay of technological and institutional developments, these accounts might be strengthened by drawing from the greater precision and theoretical coherence provided by recent institutional perspectives such as those summarized here in political science.

I explore the argument in this paper that digital tools and systems as part of institutional developments over time may be enacted by various actors and interests in sometimes unpredictable ways to produce a number of indirect effects which are captured and explained well through the lens of institutional perspectives in political science. Here are some examples: When used effectively, they can radically change costs and benefits thus altering composition, preferences, and resources of interest groups in an institutional space. Digital capacity forms a set of resources that institutions can hold, share, trade, sell for political gain. The public goods nature of many of these resources, indeed, the positive network externalities produced by adding users make their dissemination particularly attractive. Digital developments in political institutions have the capacity to change notions of legitimacy and identity and are bundled with conceptions of innovativeness, modernity and openness in political players. Pierson, Singh Grewal and others have shown that the search among political actors for focal points in order to solve coordination problems, and the stickiness of focal points as coordinating devices, make standardization and coalescence around standards attractive and sustaining through positive feedback and self reinforcement. Thus, digitally mediated institutional networks should heighten these political dimensions. Technology experts within political institutions often move forward collaboratively in advance of their political and policy superiors to build the shared standards and structures which are then ready for deployment when sufficient political agreement has been negotiated and constructed.

With these exploratory ideas in mind, I present a case of institutional development in a complex, multi-layered and digitally mediated agency. The objective of this case study is to illustrate some of the major themes discussed above as a way to move toward propositions and to test, in a preliminary way, the usefulness of taking a long-term institutional perspective that includes attention to policy feedback.

The European Commission Office for Harmonization in the Internal Market: Digital Mediation and Long-term Institutional Development

The European Union's trademark and design registration agency in Alicante, Spain, grandly named the Office for Harmonization in the Internal Market (Trade Mark and Design) (OHIM), has exceeded expectations for the establishment of the Community trade mark (CTM) and the Registered Community design (RCD).¹¹ The CTM and RCD allow individuals and businesses to

¹¹ This case study was researched by Jane Fountain with the assistance of Raquel Galindo-Dorado and Jeffrey Rothschild. A more detailed version of the case is available as Fountain, Galindo-Dorado and Rothschild, "OHIM: Creating a 21st Century Public Agency," NCDG working paper, June 2010. From 2009-10 Fountain conducted more than twenty in-depth interviews with senior managers and related officials at OHIM and related organizations and conducted multiple site visits. The author and research assistant Rothschild conducted detailed archival research. The author is grateful to Michelle Sagan Gonçalves and Cristina García for valuable assistance. The author gratefully acknowledges the generous time and effort of those experts and senior civil servants who were

register one trademark or design for the entire European Community rather than registering through national trademark offices. The OHIM and the CTM may be viewed as solutions to collective action problems occasioned by European integration. The central institutional innovation was the European legislation enacting the CTM and OHIM. In order to illuminate path dependencies and long-term institutional development, this case traces the historical and political processes by which this system developed highlighting key innovations in digital information and communication and political contestation. In doing so, this analysis is meant to explore the resources, mechanisms, political negotiations and contests that have been considered, retained and designed into the present institutional system. The passage of the Community Trademark legislation by the European Commission and the establishment of OHIM may be viewed as punctuations, or external “shocks” to the national trademark systems of Europe. At the same time, strong pressure to maintain the status quo, as perceived by many key interest groups and government actors has been exerted to influence service levels, pricing and fees, performance expectations of Commission civil servants at OHIM and more.

The case that follows illustrates a digitally mediated institution and its development in the context of more traditional national-level counterparts. Development of several new ICT systems for administrative management of trademarks and design registration gave OHIM a “first mover” advantage in terms of what may be viewed as focal points around which political contestation and, in many cases, coalescence around standards and practices would take place. These systems, as well as a portfolio of practices, rules, service standards and other core public management dimensions of OHIM, have charted a path for European trademarks. Moreover, OHIM executives and managers have worked actively with trademark offices beyond Europe—in the United States, China, Japan and with the World Intellectual Property Office (WIPO)—to establish and implement new standards, practices and information systems and analysis. These global network relationships produce feedback, making OHIM more influential within Europe through international agreement on conventions and focal points both technological, legal, cultural and practical.

The relatively new agency has produced impressive achievements in productivity and transparency since it began registering trademarks in 1996. The agency has reduced the fees individuals and organizations pay to register trademarks and designs by about 50 percent between 1996 and 2009. Through innovative use of what OHIM refers to as “e-business tools” and web-based information, for more than a decade OHIM's managers and staff, Commission civil servants, have continued along a path established at the outset of the institution to simplify the processes the agency uses to examine and register trademarks and designs, completely automating many steps in these processes. They have provided powerful information tools for the public, primarily for their “users,” OHIM’s term for the individuals and firms that interact with the agency and are direct beneficiaries of its policies, and for internal OHIM examiners to increase efficiency and reliability of decision making. The agency surveys users annually and works closely with them to develop performance measures and service standards that in turn challenge civil servants at OHIM to improve service. The cumulative effects of these developments has been to challenge deeply held attitudes and norms of the permanent civil service and to build flexibilities, including telework and temporary contracts, into internal administrative arrangements by ongoing and rigorous examination of agency working methods.

interviewed for the case study.

Many of the political actors and interest groups in OHIM's network were either neutral toward or opposed to many of these developments. Each Member State in the European Union (EU) has a national trademark and design office each of which relies on fees for revenue. Some Member State officials view the CTM and RCD, and OHIM itself, as sources of competition to national trademarks and designs. Some of the newly admitted EU Member States channel trademark fee revenues directly to the central state budget rather than to the agency itself resulting in trademark agencies with little autonomy or flexibility regarding innovation. Those agency officials exercise little budgetary authority or autonomy over fees or revenues. Fee reductions proposed by OHIM officials faced fierce political opposition by Member States because lower fees were viewed as making the CTM even more competitive. Moreover, a steep economic downturn in Europe beginning in late 2008 has exacerbated tensions between OHIM and state-level institutions as states seek revenues. (See Figure One for trademark applications by selected Member States and OHIM by year.)

--- Figure One about here ---

One might expect the members of the chief governance bodies overseeing OHIM -- its Administrative Board and Budget Committee -- to support OHIM's institutional achievements. Yet, the composition of these governance bodies is highly anomalous for a Commission agency. Their design and composition reflect compromises made at the outset of OHIM's existence to balance the interests of Member States and the Commission. The Administrative Board is comprised of representatives from each of the 27 Member States, each of whom has a vote on policies affecting the agency. The size alone of the Administrative Board, at nearly 30 members is unwieldy. Administrative Board members have been appointed largely from national-level trademark or intellectual property (IP) offices resulting in ongoing conflicts of interest and political tensions that might have been lessened if members represented relevant ministries instead of national IP offices. The design of OHIM's governance structure was meant explicitly to limit what Member States viewed as possibilities for "interference" from Brussels. This early decision has produced feedback effects that delineate an important element of the politics of trademarks in Europe.

The Commission has representation on OHIM governance bodies, but, surprisingly, lacks a voting role. In fact, an evaluation report of EU decentralized agencies issued in December 2009 stated that "the agency was established with an uncommon double governance system ... A conflict of interest issue appears as the Member States come from national trade mark offices and not from policy making bodies (ministries)."¹² Yet OHIM is not alone in having an unusual governance structure; many of the relatively young Commission agencies were formed with anomalous governance models that will no doubt be refined over time as the institutionalized policymaking bodies of the European Union negotiate and construct their authority and roles in the European system. The European Commission (EC), ostensibly a stakeholder in the success of an EC agency, is responsible for the delicate task of balancing national and Community interests.

¹² "Evaluation of the EU decentralised agencies in 2009," Final Report (December 2009), Volume III, Agency level findings, p. 215.

Intermediaries, too, have been ambivalent about OHIM's achievements in productivity and transparency particularly when these led to fee reductions. Intermediaries, the firms that provide consulting and brand management, including legal and economic advice regarding trademarks and designs, are responsible for 90 percent of the trademark processes administered by OHIM. Intermediaries charge fees based on a proportion of the trademark and design fees charged by government agencies. Their business model has been built, in part, on guiding customers through the red tape and Byzantine bureaucratic complexities of government processes. A low cost, streamlined, user friendly trademark and design system would affect their business model.

OHIM's impressive achievements in productivity have led to two sets of fee reductions. To accomplish this, OHIM has twice sought and received permission from the Commission to reduce the fee to register a CTM. The first reduction was approved in May 2005. A second fee reduction of about 40 percent was agreed to, after protracted negotiation and political wrangling, in May 2009. This second fee reduction lowered the cost of registering a CTM from €1,600-1,700 to about €900. In less than five years the cost of registering a CTM was halved from slightly more than €2,000 to less than €1,000. Striking productivity gains had resulted in a substantial fee surplus. Without fee reductions, the agency's surplus was likely to continue to grow each year. But OHIM's fees are set by the Commission, not by OHIM's officials. Any fee change requires a majority of Member States to vote in favor of a fee reduction. Officials from Member States had found it easy to block fee reductions, exercising a virtual veto power, even as about €80 million in profits each year for 2007 and 2008 was accumulating at OHIM.

The second fee reduction had been agreed to in a meeting of September 2008 after a series of compromises were forged by competing institutional actors. The formal agreement was signed by the Commission in May 2009. In an interesting institutional design proposal, Member States negotiated the initiation of a "Cooperation Fund" of €50 million to be used collaboratively by OHIM and national offices to promote modernization of the national trademark and design systems. They also voted to require that half the revenues from trademark renewal fees paid to OHIM be shared equally with the Member States, thus producing a stream of revenue that would continue in the future. The EU evaluation report of decentralized agencies called the compromise "far from efficient" and reflective of "a governance system in which the balance of powers does not reflect that of the needs what have to be addressed." Moreover, even after these measures had been painstakingly negotiated, a budget surplus of nearly €400 million remained and was likely to grow. (Surpluses are problematic for OHIM because the agency operates on a fee for service basis and is supposed to set fees to cover operational costs only.) Through the Cooperation Agreement, it appears that Member States have been able to extract resources from OHIM, to capture for themselves benefits forged through OHIM's productivity gains. By doing so, they have changed the calculus of costs and benefits, and the balance of power, between the Commission institution and national-level trademark agencies. Yet the agreement divides a surplus at one point in time and fails to deal with the ongoing "problem" of OHIM generating surpluses as it continues along a path of innovation and productivity gains as it continues to develop and implement digital information, systems and tools.

As one counter move, in May 2007, the Council of Ministers (the Council of the European Union) requested the Commission to order an in-depth study of the European trademark system.

A team of specialists based at the Max Planck Institute was selected through a competitive process to undertake the wide-ranging study and would present their results during the spring of 2010 (at the time of writing, the study results have not been published) at about the time that the third president of OHIM would be selected. The recommendations of the evaluation were likely to influence EC trademark legislation and the coexistence of OHIM with national trademark offices.

OHIM

What is a trademark? The brands iPod™, MasterCard™, Altoid™, and Rolling Stones™ are registered trademarks: a word, phrase, symbol or figure used by companies to identify and distinguish their goods and services from those of competitors. Organizations protect and manage intellectual property, in part, using trademark and design registration systems. Trademarks and designs, along with patents, may be registered and protected as IP. States traditionally have regulated intellectual property rights: the theory is that legal protection supports innovation and creativity as well as competition in market systems. For example, trademark and design registrations for the name, design and features of the iPod™, provide Apple Inc. with the assurance that the unique identity of its product will be protected by law. This assurance, it is argued, encourages innovation by protecting investments in research, development and commercialization.

In the EU, trademarks may be registered at several levels of governance: at the national level, through national offices within each of the Member States, at the regional level in some instances (for example, through the Benelux Intellectual Property Office), at the Community level and at the international level through the World Intellectual Property Office (WIPO) in Geneva. These partially nested rule regimes and institutions have been layered on one another as Europeanization and globalization have continued to change the spatial characteristics of business and intellectual property. The overlapping, partially complementary and partially competing ecology of institutions and rules complicates the politics and institutional development of these organizations. To simply name the constellation "networked governance" is to ignore critically important political contradictions and tensions in interests, logics, and history.

Created in 1993 by European law, OHIM's legal mandate is to strengthen the internal market of the EU by working to lower and, when possible, to remove barriers to "the free movement of goods and services" across Europe. The CTM and the RCD provide protection for IP rights as commercial activities have adapted to the scale of the EU. The agency became operational in 1996 and was given responsibility for Community design registration in addition to trademarks in 2003. OHIM is considered a "unitary connector;" a trademark or design from OHIM offers protection in all 27 EU Member States. The CTM makes it possible to register once, to pay one fee, and to manage a trademark or design in one language. In theory, a CTM implies that a trademark or design does not require parallel protection by way of a national registration in a Member State. But this and other issues related to territoriality and "genuine use" remain to be negotiated and constructed through the courts as a variety of competing institutional and other political actors press claims for authority and resources. The CTM has affected national IP

offices in complex ways, although most national offices have viewed the CTM as a vehicle in competition with the national trademark.

OHIM is led by a president, a vice president and the president of the boards of appeal, each of whom serve for a five-year term with the possibility of a one-term renewal. (The organization chart is presented in Table One.) The agency falls under the legal authority of the Commission and is bound by EU rules concerning employment and by EU regulations on trademark and design. Any changes to OHIM's regulations must be approved by the Commission and the European Council. In addition to the formal members of the Administrative Board and the Budget Committee noted above, representatives from WIPO and the Benelux Office for Intellectual Property have participated in meetings of the Board as observers since 1995. In 2009, representatives from five major intermediaries, or user associations—the International Trademark Association, the Association of European Trade Mark Owners, the European Communities Trade Mark Association, BUSINESSEUROPE, and European Brands Association—were invited for two-year terms to participate as non-voting observers in board meetings. These interest groups have interests that are complex and sometimes contradictory as the landscape for IP in the European and global economy changes and as they adapt preferences, strategies and operational arrangements to legal and political changes.

--- Table One about here ---

Internally, in addition to the OHIM president and vice president, the OHIM Management Committee provides operational guidance and expertise and consists of department directors in Intellectual Property Policy, Trademark, Cancellation and Litigation, Human Resources, Information Technology, Finance, Institutional Affairs & External Relations, General Services and Quality Management. Large OHIM departments have middle management layers to oversee units and teams. In the Trademark Department, for example, there are 250-270 employees. The Management Committee meets twice monthly. The president meets regularly with department directors.

In 2009, revenue accruing from the operation of the office amounted to €224 million. Optional search reports brought in €728,000. A balance of €113 million was carried over from the previous fiscal year. Total expenditures in 2009 were €338 million, leaving €727 million in surplus. This persistent and growing budget surplus was a source of embarrassment for a public fee-for-service agency because it indicated that fees were not aligned with operating costs as stipulated by law.

Start Conditions at a New Agency: Setting a Path

The agency had 23,000 Community Trademark applications on the first day they were made available in 1996. At the outset, OHIM's staff had no ability to estimate the number of applications the new agency was likely to receive. To their shock, OHIM's managers found that CTM applications during the first year would equal 43,000, overwhelming the operational and technical capacity of the agency even as this volume legitimized the policy that gave rise to the

CTM. A manager recalls: "At the beginning ... even the president was opening letters." Another official recalled the path that was established at the outset of the institution: "What drove us was the horror at the beginning when we were simply overwhelmed. People just wanted to perform better." He concluded, "It leaves you with a legacy. Happily, IT [information technology] has helped us perform better."

OHIM's first president, Jean-Claude Combaldieu, had been director general of the French IP office for 13 years before assuming the OHIM presidency. Tensions existed from the outset between the broad support of national government administrators for the importance and potential of the European Union coupled with strong resistance to the specific step of ceding control of OHIM's budget and operations to the European Commission. Thus, from the beginning, the composition of the Administrative Board was intended to allocate power to national offices and to withhold it from the Commission. Moreover, the new agency had a keen desire to move away from subsidies from the Commission as quickly as possible in order to become financially autonomous. By 1997, OHIM was supported fully by fees and had no reason to request funds from the Commission. The only control the Commission had over the agency due to its unusual governance structure and the composition of the Administrative Board was financial, and this source of control quickly evaporated.

Reflecting upon OHIM's development path, another official recalled: "National offices could fall back to paper if [their IT systems] failed. We did not have that possibility. We had no tradition to fall back on." From its operational beginning in 1995, civil servants within OHIM decided to develop a paperless office. In 1999, OHIM celebrated a dramatic 30 percent increase in trademark applications over the previous year for an annual total of 41,200 applications. Out of a total staff of 499, 261 people had been awarded permanent positions in the civil service. New units were being created at the rate of one every two months to keep up with growth in CTM applications and processing. The tone of the annual report that year was ebullient:

"The breakthrough achieved by the Community trade mark has been consolidated. It has become an essential tool for businesses seeking protection across the European single market ... This strong growth looks set to continue ... The Office's strong point has been its ability to match this growth with human and technical resources in the context of a decentralized, and therefore, flexible, administrative environment ..."¹³

From Growth to Productivity

OHIM launched its first website, OAMI-Online, in October 1998 and began making its paper documents available online. The "paperless office" was already in evidence with systems such as EUROM, CTM-Download and CTM-Online providing first-generation electronic sources of information. But the information technology systems in 1998 and 1999 required staff to scan paper mail or faxes into digital form (although it soon became possible to import data sent via faxes directly into the system) and, throughout the examination process, to print, mail or FAX paper back to users or other entities. The volume of such work required many hands: "In 1999,

¹³ OHIM Annual Report, 1999, pp. 4-5.

approximately 1,400,000 pages were received, scanned and entered in Euromarc [the EU trademark filing system].” CTM-Online which “allows research and detailed consultation of applications for CTMs on the Internet,” was developed in 1999 and consulted more than 12,000 times in December 1999 alone, one month after its release. CTM-Download, which allowed people at remote locations to download registration information, was used by national offices and intermediaries. In 1999, 25 subscribers used this system. CTM-Agent, providing online search of professional representatives and associations registered with OHIM, was introduced in 1999.

By 2008, nearly a decade later, OHIM reflected the dramatic technological changes that had transformed business and, to some extent, government in knowledge management, communications and analytical capacity enabled by the Internet and web. Organizational capacity, policies and structure were being reshaped at OHIM to streamline work internally and to deepen connections to the network of public, private and not-for-profit organizations in the trademark and design system. By 2008, the annual report was available in multi-media form for the first time, and included videotaped interviews with managers, employees and partners. The number of OHIM staff had risen slightly to 705. OHIM saw a small downturn in the volume of CTM applications due to the serious financial downturn globally. In 2008 OHIM received 87,991 CTM applications, down only one percent from 2007. About 16 percent of these came through WIPO. By contrast, OHIM received nearly 60,000 applications in 2004 and 78,000 in 2006.¹⁴ In 2008, the agency registered trademark number 500,000—for a small Italian company—reinforcing symbolically the message that the policies and institution exists to help small and medium enterprises as well as large firms.

Managers at OHIM viewed the guiding vision for capacity and performance improvements as a virtuous cycle: Enhanced productivity and efficiency leading to improved working methods leading to higher productivity leading to growing financial surpluses. A key element of productivity growth was automation of previously labor-intensive, paper-based routine processes. (Table 3 presents a flowchart showing the main steps in processing the CTM.) By 2006, it was clear, as the table below indicates, that users would file CTM applications online and that more Community design applications also could be processed online.

Table 2: Percent of Online Applications Filed by Year

Year	CTM e-filing	RCD e-filing
2004	21%	13%
2005	32%	19%
2006	72%	27%
2007	78%	33%
2008	83%	40%

¹⁴http://oami.europa.eu/ows/rw/resource/documents/OHIM/statistics/statistics_of_community_trade_marks_2010.pdf

--- Table 3 about here ---

By 2008, even *The Economist*, which has reported on the overwhelming failure rate of government IT projects, would report that “OHIM offers a streamlined, paperless operation and does much of its business online, keeping costs down and speeding up the processing of applications.”¹⁵ Although the innovative culture of OHIM, which by 2003 or so had come to emphasize performance management and customer service, typifies that of most high performance organizations, it remains unusual in many public agencies. How was this capacity and culture developed in a public monopoly? What was the path by which operational capacity and networked relationships with European and broader counterparts were forged?

Policy Entrepreneurship for Institutional Development

Wubbo de Boer, a Dutch lawyer and civil servant became the second president of OHIM in October 2000. He brought to the task nearly 30 years of experience in the Dutch Ministry of Economic Affairs and in the Ministry of Transport, Public Works and Water Management, approximately 20 years of which were at the director general level. During his first meetings, a recurrent message was that he need not worry about the daily operations, that his vice presidents would let him know if there were problems that required his attention. A second theme echoed by managers was that they were so busy trying to adapt the operations of a new organization to high levels of growth that they had “no time to think.” President de Boer and his managers set about to develop a more horizontal organization and to focus on the needs of what OHIM calls its “users,” primarily large firms handling brand management and forming a set of powerful interests in the European economy. President de Boer created a Quality Management Department meant to develop expertise and devote sustained attention to analyzing processes and improving them. Presciently, he noted that the unit “created a point of reflection for many things to be said and thought that were not possible before: to do something that was fundamental.” OHIM’s officials, who had been running to catch up with growth, welcomed the opportunity to think systematically about institutional development.

Inevitably, in an organizational restructuring some managers lose power while others gain. And restructuring affects all levels of the organization. Staff began to realize that organizational and cultural changes would affect them as well as it became clear that the core strategy would shift from building capacity through growth to capacity building through productivity gains guided by simplification of processes and procedures, attention to user needs, careful measurement of performance and continued innovation using technology. These internal tensions reflected what would become tensions in the European network of trademark institutions as OHIM continued to grow in CTM registrations and to make productivity gains using the Internet and a range of digital technologies.

¹⁵ *The Economist*, “A money mountain,” March 8-14, 2008, p. 73.

By 2000 the EU had decided upon enlargement, admitting more Member States beginning in 2004. OHIM absorbed another 100 employees, but decided to award temporary contracts to them, continuing their cultural shift away from staff growth and disrupting further a "social contract" with the civil service rank and file. Enlargement would add another 100 million consumers to the public served by the CTM.

Building Staff Flexibility and Performance Measurement

In a series of institutional developments that would deeply challenge cultural norms of the civil service, OHIM's officials continued to analyze and reorganize internal administrative work flows and staff policies, within European civil service laws, to gain productivity.¹⁶ Using the economic crisis of 2001 and a downturn in application volume, OHIM's officials initiated a policy that 20 percent of the staff would remain temporary EU employees with short-term contracts in order to preserve flexibility to adjust employment numbers as economic cycles dictated. During the early years of OHIM, recruitment efforts focused on lawyers and paralegals. The skill mix changed as e-business tools and use of large databases became embedded in the design of the examiners' work. From 2003 to 2009, the number of staff at OHIM barely increased. As late as 2002, 80 percent of trademark applications arrived by mail or FAX, requiring manual entry. By 2009 less than 20 percent of applications arrived through mail or FAX, and this proportion is expected to decrease further. In 2001 OHIM's management team developed a policy that employees would receive 12 days of training a year, an unprecedented investment compared to other EC agencies. President de Boer wanted three to five percent of work time to be spent in training, 90 percent of which is conducted face to face. Internal mobility of staff and strong investment in training are human resources policies in use at OHIM designed to align with the agency's strategy of continuous improvement. OHIM also established telework for its employees, a set of policies that has been beneficial for families in particular. By 2010 OHIM had 141 staff teleworking, about 90 of whom telework full time. The rest work part time, most at 50 percent time. Managers tried to find people for telework who were already high performers. Performance measures and user surveys track accessibility and other customer service measures of quality. Given the automated systems in place and the shared data and files used in examination processes, the work of each employee is transparent. To date, these measures have been satisfactory and the telework program is considered a major success.

In 2004, OHIM's managers established performance targets, or objectives, for each individual employee for each 12-month period. By linking performance objectives to the appraisal process—as well as to the organizational culture—the notion of performance standards became salient throughout the organization.

User Satisfaction as a Standard for Performance

¹⁶ Internal organizational developments at OHIM are treated in detail in Fountain, Galindo Dorado and Rothstein, "OHIM: Creating a 21st Century Public Agency," NCDG working paper, 2010.

To create "external pressure" on the institution, OHIM conducted its first annual web survey of users, in the five languages of the agency, in 2005, and published the results on its website in 2006. The agency surveys users annually and reports the results publicly with the explicit use of transparency to serve the public and to pressure itself to perform.¹⁷ The 2005 survey results indicated a higher level of satisfaction, in general, on the part of agents (intermediaries) versus proprietors. The "global image" of OHIM in terms of quality of service, professionalism and seriousness were viewed as its key strengths. In fact, evaluations of the staff were consistently high. In 2005, proprietors, or firms -- typically small businesses -- that dealt directly with OHIM rather than through intermediaries, reported low levels of satisfaction with the information and communication dimensions of service. Overall, respondents reported that the "completeness of content" and "range of services available" on the website were key strengths while the clarity of content, website structure and "speed of navigation" were reported as weaknesses.

Based on feedback from users, OHIM developed three primary service dimensions – *timeliness*, *accuracy* and *accessibility*. Timeliness refers to the time taken to process applications and other filings. Accuracy refers to the quality of decisions made. Accessibility measures how easy it is for users to reach examiners and other points of contact at OHIM. These and other core performance measures guide developments at OHIM. As a result of focusing on user satisfaction, OHIM's managers began to analyze the design of work of their examiners with a view to focusing their expertise on the core tasks of examination while leaving ancillary tasks, such as data entry and translation, to others. OHIM established a user satisfaction task force, led by a newly retired former industry brand manager, to develop an action plan to respond to the 2005 survey findings. The task force was asked to publish "periodic progress reports" in the *Alicante News*, the OHIM newsletter, to make their work publicly available to OHIM's users.

During 2006, OHIM increased the number of users it served from 11,600 in 2005 to more than 64,000 because the first CTMs filed in 1996 were up for renewal. Although complaints increased, the level of satisfaction remained relatively stable in 2006 due to implementation of complaint handling procedures and systems. As in 2005, intermediaries, or agents, reported, on average, a higher level of satisfaction than proprietors and differences in the preferences and perceptions of these two groups of users continued to be evident. Interestingly, proprietors reported less satisfaction with and use of e-business tools, while agents reported improvements in satisfaction. The institution learned about differences between interest groups through its user satisfaction surveys and analyses.

Quality Standards. Building on their *service dimensions* of timeliness, accuracy and accessibility, OHIM's managers began to develop *quality standards for service*, based in part on analysis of the 2006 user survey results. In 2007, they asked users to prioritize various time and quality service standards related to examination, publication and registration of CTMs. More than eighty percent of their users reported that these standards were important to them. The 2007 survey results included the first systematic feedback from users concerning service quality standards and showed very strong increases in user satisfaction across all categories of users and

¹⁷ See OHIM User Surveys and results on the agency website at <http://oami.europa.eu/ows/rw/pages/QPLUS/USS.en.do>

all categories of service.¹⁸ OHIM's staff continued to be perceived as its greatest strength. Moreover, staff accessibility, which had been a weakness, improved significantly. However, for proprietors in particular, finding the right person to speak to, the ease with which one might obtain the right information and clarity of information continued to be areas of dissatisfaction.

Ironically, given OHIM's focus on e-business tools and electronic communications, the overall evaluation of the website decreased from 2006 to 2007 with respect to speed and reliability of the system, but users continued to report increasing satisfaction with the move from paper to electronic communications. The progressive introduction of more web-based information and e-business tools created a dynamic environment online for users with inevitable bumps in the road as new systems were developed and implemented. In March 2007, OHIM made it possible for users to access their files and other non-confidential information online. Yet less than half of the users surveyed later in 2007 had used the services. It was negative survey responses that led OHIM's managers to become more aware of their users -- and usability -- when designing e-business tools and their user environment on the web. Their growing focus on users led OHIM's technology managers to begin to build greater user participation into the choice, design and development of new e-business tools.

OHIM's managers used the annual user survey results to develop "needs for action," which would feed into performance targets and development priorities reviewed and updated each year. To sustain a potent source of "external pressure," OHIM's managers were frequent dialogue with users in order to measure their preferences, perceptions and priorities in detail. This flow of information and analysis allowed OHIM to develop and refine service standards and to work internally with staff -- already highly regarded by users -- to develop performance measures and targets.

The agency's close contact and analysis of what are its major constituents aided internal performance. More importantly, perhaps, these management strategies mobilized a strong base of support primarily among large, global firms; the intermediaries who manage their brands; and the trade associations associated with them. This alignment between continuous improvement in internal performance through close communication with users and mobilization of strong interest group support formed a self-reinforcing cycle for the development of the institution.

OHIM as a Benchmark for Europe: The Service Charter

By 2008, Charlie McCreevy, European Commissioner for the Internal Market and Services, would announce that "The Commission supports the ambition that (OHIM) should be the benchmark amongst industrial property offices, and targets for further improvement in the work of the Office are high."¹⁹ Years before, productivity, rather than growth, had become a strategic

¹⁸ Satisfaction in the area of appeals decreased very slightly, although the sample reporting in the area of appeals was very small and the difference from the previous year's results was not statistically significant. Although satisfaction with RDC invalidity dropped slightly, it was not statistically significant.

¹⁹ Quotation from OHIM, Annual Report, 2008.

goal for OHIM. The annual report was emphatic: “In fact, productivity measured in terms of registrations of trade marks and designs per member of staff has grown by more than 70 percent between 2004 and 2008, and the financial surplus has risen in consequence.” OHIM's leadership argued that gains in productivity should translate directly to reductions in the fees charged to users. And their establishment as a fee for service agency required that fees be aligned with operating budgets.

In 2006, OHIM began to develop its service charter, a set of performance targets expressed as commitments to users. The service charter, and the performance standards within it, would be used internally to suggest targets for individual employees and for units in order to measure their productivity and, in the aggregate, the agency's performance. The agency publishes on its website its actual performance against its service standards on a quarterly basis to promote transparency and accountability. Even before de Boer's presidency and institutional entrepreneurship, OHIM had a tradition of listening to its users.

OHIM's strategy included the following elements:

- Develop service and performance measures with user consultation
- Develop and use e-business tools and digital information and systems to streamline processes and to improve performance
- Measure performance results and analyze processes with a view toward improvement
- Make the results public. Use transparency to challenge the organization and to fulfill the promise of a public agency to operate transparently
- Use results as feedback to focus on areas of challenge and to continue to make improvements
- Tie performance to appraisal, promotion and reward systems

Continuous improvement strategies raise normative questions of importance for political institutions. By what criteria are the standards set in the first place and by whom? What are reasonable expectations for the public, for civil servants, and for the use and potential productivity gains of various e-tools and shared databases? As OHIM has become the benchmark for trademark and design registrations in Europe, these standards putatively become benchmarks for comparison across national offices and across IP agencies internationally. The inter-connected nature of political institutions in this policy regime makes this inevitable. Other agencies would not need to climb the learning curve that OHIM has already climbed and might, instead, adopt similar examination and innovation in processes and performance measurement to serve the public. But such a cultural as well as operational shift from procedural regularity to measurement of performance outcomes marks a modernization of public agencies and public service that is held in varying regard across political institutions in Europe.

OHIM's officials had largely mandated its administrative innovations on agency staff, producing tensions that could not be diminished solely through training and telework. In 2009, for the first time, examiners participated in the process of setting targets. It also became clear that applications should be triaged, that is, categorized according to the complexity of the application and performance measures adjusted according to dimensions of case complexity. Examiners were in a strong position to develop these categories to improve measurement and, ultimately, to

make sense of performance targets. Eight examiners are now involved in a second, longer-term study to more clearly determine performance targets based on the observations of daily production and perceived difficulty of cases. Moreover, they are examining the quality of their decisions to improve the consistency of examination results as well as consistency between decisions made by national offices and those made at OHIM.

Continuing its focus on measurement, in November 2009 OHIM implemented its first employee survey. Some of the results were troubling, in fact, deemed a "staff protest vote in terms of the management policy" by one manager. The cohort of employees who thought they would be hired into permanent positions but who were given temporary contracts instead is coming to the end of their contracts, a bitter moment for the organization. Yet overall employees reported that their job is more interesting because they now deal with files from the beginning to the end of a decision process. The deep cultural shift in norms of work and productivity excites some civil servants but perplexes others who wonder why an agency with a surplus and whose productivity is the highest in Europe continues to push for higher performance. Another intriguing discrepancy lay in the difference between staff perceptions of user satisfaction and feedback from users themselves. The survey of staff found that employees tend to think that users are not very satisfied with the services of OHIM. But the user survey feedback indicates a higher level of satisfaction than that perceived by the staff. Ironically, these internal tensions reflected tensions in the inter-institutional network of trademark agencies as well.

Digitally Mediated Institutional Development

From its beginning, OHIM organized itself as a paperless office and intended to leverage the power of e-business tools and information. Substantial productivity gains were made over time as the information entered by users into the e-filing system was integrated with "back office" systems to increase reliability and scalability. The agency increased the ease of use and clarity for its users of the e-filing interface. In addition to refinements to the e-filing system and the back office systems used to process applications, renewals and oppositions, by 2010 OHIM would offer a suite of e-business tools or "solutions" to its users

By 2009, OHIM could claim to be on the verge of becoming "a fully electronic, e-business organization." The agency was unusual among European political institutions to possess the financial means for substantial development projects and had invested approximately €30 million per year, or 20-25 percent of its budget, to build a "complete e-business service offering" in five years. In line with a commitment to web-based processes and information, OHIM has a policy of openness and transparency, the goal of which is to put as much information and to make as many tools available online as possible.

As development of a digital office continued, new tools, systems and databases gave rise to re-examination of work processes, first in the back office, for example, in routine, clerical tasks and, later, through simplification and streamlining of the core examination tasks of OHIM. Digital tools, communication and media enrich and deepen the relationships of OHIM to its users and government partners in national offices and in other IP and related agencies. Moreover, by making its databases, search tools and other innovations accessible to the public and its users,

OHIM has fostered co-production of trademark and design filings as users conduct their own research and analysis, check the status of filings and review the decisions of OHIM examiners.

Importantly, the fundamental reason for the existence of the institution – to support harmonization of the internal market – has been enacted as well through a host of collaborative projects by which the European trade mark system has been developing shared standards, shared platforms, shared classification systems, shared databases, shared tools and, through these interoperability gains, shared understanding and a shared view of trade mark and design in a federated system.

The agency's close contact with the large economic interests that form its user base--and political support--also forms a self-reinforcing positive feedback loop for the agency. As OHIM listens to its users and modifies operations accordingly, its political support grows. For example, Gerhard Bauer, Chief Trademark Counsel at Daimler AG and President of the International Trademark Association, observed:

OHIM was at the forefront of electronic office [projects]. They started with their internal administration system, the Euromarc system, and then continued to develop the systems that are visible to the users. OHIM developed over time several new systems: e-filing, e-opposition, e-cancellation, etc. – the whole "e-file". They also set up a users' group ... asking for their input, asking for their ideas for new electronic systems, giving them access to test systems, inviting them to Alicante to test and comment the systems ... This was a very open and user friendly way of introducing the system.

User Participation in Design and Development of Digital Mediation: The OHIM Lab

The OHIM Lab is a joint working unit of the Quality Management and the Information Technology divisions formed to test new processes, tasks and organizational systems. It contributes importantly to the path forged at the outset of the institution to examine and improve internal processes. The idea is to build and test in a controlled setting within OHIM and to work with OHIM employees to fully examine a new idea before launching it more widely. OHIM managers and staff are developing the third generation of their e-business tools in the Laboratory, focusing on integrating users into administrative processes to, in fact, shift some of the work to the user so that examiners can concentrate the efforts of the institution where they add value.

OHIM increasingly interacts with users in design and development of web-based systems and tools. In addition to an annual user survey, they began to invite users to visit OHIM and to participate in focus groups to discuss new ideas for e-business tools or other web-based innovations. The OHIM Lab uses rapid prototyping to develop solutions that could then be tested and tried by users. This exercise has opened their eyes to the importance of usability testing. OHIM holds user group meetings twice a year to examine use of their current e-business tools and to explore potential tools.

OHIM's managers were confident that users would readily accept, in fact, would much prefer to use electronic filing and communications with the office. By 2009, 93 percent of CTM applications were filed online compared to 72 percent in 2006. Renewal applications filed electronically were at 60 percent in 2009, up from 27 percent three years before. Oppositions to CTMs filed online rose fourfold from five to 20 percent from 2006 to 2009, and OHIM expected that new tools to be introduced in 2010 would further increase oppositions filed online. With each of these advances, productivity continued to improve.

Trademark information benefits from openness, but design information must be secure. If, for example, Porsche wants to register a “deferred design,” a design they want to keep secret for a few years, lack of security could have serious economic consequences for the firm. Strict security measures and policies are in effect. OHIM managers realized early on that they would need to benchmark against the highest standards and thus sought and gained ISO standard certifications in all the relevant areas of information management.

OHIM's digitally mediated institutional developments are shifting preferences, interests and resources of its key interest groups and institutional counterparts at the national level. As its IT director noted:

By making IT more accessible, we are cutting the fingers of our biggest customers. It's always an interesting equilibrium exercise to see how far we can go to offer services to our external users without tipping the representatives. The frontiers, the big lawyer firms, are moving. They are seeing that the common functionalities they are offering are what we are offering. So the added value they are offering is moving to where it should be, that is, advising customers in difficult cases, helping with opposition cases. So the filing is not their business. The first search is not their business. We have federated search. The services they were invoicing will go down and they will have to focus more on core business functions. So the movement we are making is having an effect on their core business models. This is happening not only in the trademark area but in all of public administration. The public administration is using the money of the people. How far should they go in offering free services that are currently the business model of private firms? It would be easy to say that through the fees, I will collect a lot of money and use that to offer free services to the public. In that, I will kill a lot of private firms. Where should that line be drawn?

Another agency official wryly summed up the political challenge for OHIM: “Someone said the system should be simple enough for intermediaries to operate but not so simple that intermediaries are not needed.” Clearly, large firms with complex brand management needs would continue to rely on the sophisticated expertise of intermediaries, but many of the underlying logics are shifting.

Using Interoperability to Increase European Harmonization

Over time, OHIM has begun to invest more resources in collaborative projects with external partners – in effect, strengthening the European trademark and design network and, more

broadly, the globalization of IP. They are part of the Trademark Trilateral Offices, a group that includes the IP offices of the United States, Japan and Europe. They are active in a growing range of activities with institutional counterparts in China and other high-growth countries. From the start, WIPO has been a partner in many institutional developments.

But bilateral and multilateral collaborative projects with national offices in Europe are central to the technological underpinnings of their mission: the harmonization of the internal European market. The framework for such cooperation had been decided in a technical cooperation meeting in July 2005 with projects beginning in 2006 related to training, information technology, promotion and information services and other projects. During 2009, following the Cooperation Fund agreement, the pace of these projects intensified. Ironically, given OHIM's strong political, technological and entrepreneurial skills what had originally been perceived as a "loss," has become a lever for continued multi-institutional developments within the policy regime for trademarks.

By the end of 2009, OHIM had released *Euromarc++*. While developed initially as OHIM's internal electronic file manager, it was available through a free license to national offices. In 2009, the UK Intellectual Property Office adopted the system. Its adoption by other national offices would save the considerable investment required to build such a system whole cloth. The relationship between the UK Intellectual Property Office and OHIM reflected the simultaneously collaborative and competitive relationship between OHIM and national offices. In its annual report for 2008-09, the UK Intellectual Property Office reported that:

There was a possibility that, when OHIM joined the Madrid Protocol, substantial amounts of trade mark business would be diverted there with a corresponding loss of income to the Office. However, there has been no substantial evidence of this. OHIM plans to reduce its fees again in May 2009 and this will be kept under review. A key part of our fee review and TM10 programme [a technology upgrade project] is to ensure we remain competitive.²⁰

The Trade Mark View, or *TMview*, tool also played multiple roles as a tool for users, as well as a means of deepening harmonization through shared resources and information. *TMview* (formerly *EuroRegister*) focuses on developing and supporting a "common trade mark search engine tool"—an online consultation tool—to allow users to search for trademarks in the registers of WIPO, OHIM and EU national offices. Eight national trademark registries including those of Portugal, Czech Republic, Benelux, Denmark, the UK and Italy had registries available to search through this system in 2009. Other national offices were invited to join as the architecture was upgraded to support new technical requirements. The goal is for users to be able to conduct pre-application research to determine if the proposed trademark is already registered. When the trademark registries of all 27 EU Member States are included, users will be able to access approximately 8.5 million trademarks. Currently, the search portal gives users access to five million trademarks and their associated registry information.

The EuroClass tool provides a way to compare the classification databases of national offices. This centralized resource will provide users with access to the classification of goods and

²⁰ UK Intellectual Property Office, "The Patent Office Annual Report and Accounts 2008-2009," p. 15.

services offered by all participating European national offices and will find equivalents between the expressions for goods and services in the different classifications databases. The tool is currently integrated with OHIM and the UK and Swedish offices. The national offices of Portugal, Finland, the Czech Republic and Germany have joined the project. President de Boer noted in an interview in 2009 that he anticipated all Member States to be included in the database by mid-2011.

Harmonization suggests comparable, and in some cases identical, classification of goods and services across entities. Focusing on this ambitious goal, OHIM has partnered with the UK National Office to develop a shared classification database consisting of more than 100,000 terms used to categorize goods and services. German and Swedish national offices have joined this effort to harmonize their classification of goods and services and to use one common database. Sweden had agreed to validate the translation of the single database from English to Swedish, and Germany joined the project during 2009. Other national offices were invited to join the project, and €3.6 million had been “earmarked” by OHIM for translation and validation services in order to ultimately produce a common database available in the 22 EU languages and for use by all IP offices. OHIM and WIPO had developed a joint understanding that had the possibility to result in use of the common database by CTM and Madrid filers. The two organizations were at initial stages at the beginning of 2010 and had shared databases in order to identify discrepant information. WIPO Director General Francis Gurry referred to building a “global IP infrastructure,” when he signed the agreement to move this project forward.

Still other more modest collaborative activities and exchanges were slowly but surely building greater coherence and interoperability throughout the system. National IP experts have been seconded to OHIM since 2006. OHIM paid all costs except social charges. At the end of 2009 there were 19 national experts working at OHIM at a cost of €1.2 million. OHIM had for many years provided training for enforcement authorities, primarily for judges at a cost of €330,000 per year. The agency committed €200,000 per year to coordination of liaison meetings held regularly with other EU IP offices to discuss similarities and divergences in practices. The information technology standards for electronic exchange of trademark data were developed through these meetings. In fact, WIPO endorsed these standards, which have become the ST.66 standard guiding electronic exchange of trademark data.

Two ambitious projects, signaling the next level of interoperability and harmonization potential, are in conceptual stages. OHIM and national offices were in discussion concerning *Eurofile*, a project aimed at creation of a European platform for filing national, international and CTM applications through a single interface. And OHIM and national office managers were in the early stages of discussion about *EuroPortal*, a pan-European web portal, which, OHIM claimed, “would provide common access via a single portal to IP information throughout the EU ... [by] sharing information, federating services and aligning terminology.”

Across these many projects, OHIM’s technology managers began to rely increasingly on shared technical standards and open source technologies in order to increase interoperability within OHIM and within the system of national trademark and design offices. From 2003 to 2005, a group of technical experts in the trademark and design domains met four or five times each year to discuss and develop common standards, which are necessary for harmonization of the internal

market. An expert group, consisting of five offices, typically is able to achieve quick results. Their results have been adopted as the EU trademark standard, TM-XML 1.0, and have been proposed to WIPO as a new standard (named WIPO ST.66). This group liaises at the international level where work on international IP standards is quite active and moving forward quickly. They developed the international trademark standards. This is a case in which OHIM drove the market because commercial companies providing brand management wanted a common standard but did not have the institutional means to develop one.

One of the most ambitious projects, technologically, is the Trade Mark XML Open Standard Initiative. Imagine a government project involving all 27 European countries, OHIM, and WIPO that puts as much project documentation, useful examples of source code, and reporting as possible on Wikipedia.²¹ Most of the computer code is listed in Sourceforge, an open source development website, in order to allow any coder in the world to reuse, propose improvements, or eventually to discuss or fix identified errors. Although there are password-protected areas for the group's work, the level of transparency and openness of this trans-national project is highly unusual. Alexandre Tran, Head of the IT Architecture and Standards Sector in the IT Department of OHIM, is an active member and contributor to the working group. He noted: "You can see where all the member states are in the schema. This is a way to share information with any office worldwide and it's an exchange of information. It says to the public, we will give you access to information 24/7, then maybe you have to put your added value somewhere else. For the core information, OHIM will offer this service." The underlying rationale for most of these interoperability projects stems from development of shared classification, development of dictionaries to translate across different national terminology and standards, and development of equivalencies across varied definitions in use for classification of goods and services.

A password protected wiki, or shared working space, called Share IP Wiki, lists all the software used in the major business process systems of EC national IP offices.²² As each national office adds information to this site, there will be a complete inventory of national trademark and design office software for Europe. By early 2010, however, the inventory was far from complete. Yet the sharing of code, while highly technical, may accelerate development and use of shared standards, templates, and tools faster than any political or management process. The working group keeps its presentations, discussions, videos, newsletters, and other documentation on this shared site. The level of transparency offers an incentive for innovation and for diffusion of innovations throughout the European Trademark and design system. Each national office can see exactly what other national offices are doing with respect to technical standards and code.

Tran described one of his own current projects, independent of the working group, as of the beginning of 2010. The Trademark Bus is a project under development by Tran at the OHIM lab that allows users to access trademark information about a particular good or service that is trademarked from several different entities including national IP offices, OHIM and WIPO.²³ It proposes to tag trademarks with the national registry number for an item's registration in each

²¹ <http://en.wikipedia.org/wiki/TM-XML> summarizes the Trade Mark Extensible Markup Language, an open XML standard for exchange of trademark information between IP offices and firms. It was developed by an OHIM working group in June 2003.

²² <http://shareipwiki.org/wiki/OHIM> is a password-protected site for the working group.

²³ <http://trademarkbus.net/>

country. The “bus” is a means to create a standard way to identify every good and service with its country, trademark and other information in a multi-digit code that serves as a unique identifier. This multidigit coding scheme would then be used to identify any patent, trademark, design or other IP from any country.

The Trademark Bus enables a second project under development by Tran called the hTrademark whose objective is to build and use microformats, or standardized bits of data, that can be digitally attached to a trademark ® or TM when it is represented online – for example, on a website advertising or selling the good or service. The microformat including trademark information would allow for indexing, searchability, direct access to an IP office register and automatic check of trademark status of goods and services represented on the web.²⁴ If private sector firms tag their trademarks when these goods or services are listed on the web, the IP information, including the status of all trademarks associated with the good or service, remains with instances of the good or service on the web. In 2009-2010 the OHIM IT Department contacted Google to propose that this new microformat be included in future versions of the browser Chrome. Currently its support needs installation of an extension developed by OHIM and available for Firefox and Chrome. This is part of a larger effort to create an awareness of how to put a trademark on the web. The issue has become salient in part because at the beginning of 2010 a legal case was pending regarding whether it is legal for Google to connect users to non-trademark sites for selling non-trademarked goods and services. Using microformats, Google software could be written to check the trademark information of a product or service. If it were designed to do so, a search engine could prevent a user from connecting to a site selling counterfeit goods.

Long-term Institutional Developments for Trademark and Design in Europe

Strengthening the economy and innovative vitality of Europe are key reasons for harmonization of trademarks and design in the internal market. Key interest groups representing brand companies that globally continue to pressure the European Commission to foster development at the European and national levels of better coordinated, cost-effective, rapid, and predictable responses from public agencies responsible for granting exclusive rights over trademarks and designs.

OHIM was widely considered the benchmark for trademark and design registration. Their experience and innovative capacity offered to national offices a set of important strategic and administrative practices, e-business tools, and other information resources that could be adopted whole cloth or adapted to national settings. Opportunities for knowledge sharing among the national offices and with OHIM had made the vision of a European multi-level governance and administrative system for trademark and design operationally feasible. Although a thicket of legal, political and practical issues would require political negotiation and careful policy evaluation to harmonize, the technological systems and e-business tools required to run a multi-level, coordinated system were available for immediate use.

²⁴ <http://en.wikipedia.org/wiki/HTrademark>

Aligning Regulations with Digitally Mediated Policies

OHIM's managers found that the management and e-business innovations they had developed were far ahead of most European legal and institutional systems regulating IP. They noted the long lag between the establishment of CTM regulation in the early 1990s, with limited revisions in 2004, and marked changes in the world of administrative and business processes due to the Internet since that time. In a detailed analysis sent to the team at the Max Planck Institute tasked by the EC to evaluate the future of the European trademarks system, they made the case for a more assertive Commission stance toward modernization and harmonization of the internal market:

The world of business and administration has been transformed in the last fifteen years by the seismic impact of technological change, particularly that of the internet. The legislation needs to reflect these changes and provide a framework for the operation of a system in the 21st Century.

Today the business world operates in a modern environment where electronic communication is the norm. The [CTM] Regulations largely reflect a paper oriented approach. The Office has made strides in making electronic tools available to its users ... but is hampered by the "paper" legal framework. An example of the outdated thinking that needs to be corrected is the fact that even notifications by the Office by courier are considered to contravene the Implementing Regulation. ...

They based their arguments on the substantial experience they had gained through processing hundreds of thousands of applications through every step in trademark and design examination procedures over the course of nearly 15 years. Drawing from this experience base, they argued that:

In particular, it is considered that electronic communication should be the rule and unnecessary bureaucratic procedures should be eliminated ... What is standard procedure in business and administration should be standard practice in dealings between the Office and its users.²⁵

More striking perhaps was their contention that user satisfaction should be the central measure of performance of the agency given its fee for service economic basis. As a corollary, they argued that the financial autonomy of OHIM should be strengthened in law.

In their brief to the Max Planck Institute, OHIM managers emphasized that adaptations to national office processes were made necessary by advancements that had been implemented at OHIM, in particular wide use by proprietors and agents of its e-business tools, systems and databases and its use of the Internet as a central communication and coordination backbone. OHIM user surveys indicated strong support and enthusiasm for electronic communication and processing. They spoke out forcefully for modernization of administrative processes and

²⁵ OHIM, "Contribution to the Study on the Overall Functioning of the Trade Mark System in Europe," January 2010, p. 10-11.

procedures made possible by digital technologies bringing to a head the contention between traditions and long accepted routines of public administration and the new world of digital administrative work arguing that “Simplification of elements that no longer prove necessary and complicate procedures without sufficient reason needs to be addressed.”

Deepening Interoperability to Foster Harmonization

The CTM system was designed by law to coexist with the national trademark systems of the member countries and with the international system. With multiple options for registering trademarks one might expect a decrease in the amount of trademark work, yet this had not been the case overall by the end of the first decade of the 21st century. Trademark filings overall had increased although there were exceptions for some Member States and regions. (See Figure One.) Early on, managers at OHIM had committed, following their mandate, to moving beyond mere coexistence with national offices to building greater interoperability across the entire network of trademark and design offices. They offered a vision for an integrated yet federated trademark system:

In a global economy, users expect not only to count on the system to protect their trade marks at different territorial level (national, regional, international) but also that those systems offer the same standards of service. Therefore, coexistence must be complemented by interoperability among systems.²⁶

The CTM legal framework itself had encoded within it several requirements for interoperability:²⁷

- Filing through either national/regional offices or OHIM
- Link between the international system (Madrid system) and CTM
- Seniority based on national registration(s) in the CTM system
- Possibility to oppose registration of CTMs on the basis of national trade marks and vice versa
- Conversion of CTMs into national/regional procedures
- Enforcement of CTMs by national judicial authorities, etc.

These legal requirements do not oblige different offices to harmonize their administrative processes or procedures. Nevertheless, OHIM began in 2005 to develop several technical cooperation projects to develop interoperability within the broader European trademark system with a goal of providing to users a coherent portfolio of tools and an expectation of consistent results.

The Cooperation Fund, forged in 2009 as a compromise on the use of the OHIM surplus, was meant in part to foster interoperability between OHIM and national offices through a series of projects intended to reduce differences among offices. OHIM managers were eager to work with

²⁶ *Ibid.*, p. 15.

²⁷ *Ibid.*, the six requirements for interoperability are quoted from the report, p. 15.

national offices on such projects, and an increasing number of offices were working collaboratively with OHIM. But national offices had no legal obligation to change their practices or procedures. Thus, OHIM's leadership suggested strongly that OHIM's regulations should be modified to make clear the EU intention that harmonization – and interoperability – should be pursued by national offices and that OHIM should coordinate the overall efforts.

Their core arguments to the evaluation group concerning institutional developments revolved around four points: (1) Fundamental changes were needed in the governance structure of OHIM to free it from an unwieldy structure with too small a role for the Commission and too powerful a role for national offices; (2) Changes to basic regulations in the CTM system were necessary to allow the agency to continue to innovate and to manage its budget responsibly, particularly with respect to revenues and surpluses; (3) Clarification of the legal meaning of “genuine use” of a trademark or design was needed to make clearer for users and agencies how the dual system would develop; and (4) OHIM called for the Commission to more clearly articulate a vision for an interoperable EU trademark system that would institutionalize cooperation between national offices and OHIM.

The creation of the EU and an internal European market gave rise to the claim that a CTM would be necessary as one instrument among many to foster free movement of goods and services across Member States. The CTM was developed also so that businesses might adapt their activities to the larger scale of the EU.²⁸ At the same time, Member States understandably had been careful to preserve national autonomy, thus producing the unusual “double governance” structure of OHIM and continuing ongoing political and legal debate as Europe refined the vision and specifics of multi-level IP regimes.

To take one important example, the issue of genuine use and its legal definitions was being developed through cases as well as through debate. As the notion of a CTM matured through the experience of actual practice and cases, a number of legal questions arose. Specifically, the territorial scope of use for a CTM was left vague in the initial legislation, which requires only that use must be “in the Community.” Later, it was agreed that use in one country is legally equivalent to use in the Community. But critics of this definition argued that SMEs in particular might be damaged, although no actual evidence of damage had materialized. Advocates of this definition argued, by contrast, that SMEs whose initial reach and brand protection might be national would have the possibility for future expansion in the Community without fear that larger firms would make strategic moves to block their expansion pre-emptively. OHIM argued against territoriality provisions as well to protect the integrity of the Single Market by, for example, preventing the possibility of national courts or administrations to rule that non-use of a CTM in their jurisdiction would mean that the CTM would not be protected in that national system.

The idea that an increasing number of trademark registrations at the national, Community and international levels would “clutter” the registers had fostered concern about the availability and of suitable marks for adoption. These multiple possibilities for trademarks coupled with existing

²⁸ The legal foundation for trademarks in Europe consists of national laws, a directive of the European Parliament and of the Council detailing harmonization of those laws, by the regulation that established the Community Trademark, other EU legislation and a series of international treaties binding European nations and the EU.

legal requirements to prove genuine use, some argued, had produced and might exacerbate a proliferation of unused CTMs in the register making it more difficult to find new marks. Yet OHIM argued that empirical evidence did not support such claims. Further, they argued, tens of thousands of CTMs were not renewed each year. This suggested, first, that users are not “squatting” to block others and, second, that the system, by requiring renewals, circulates marks back into the system for use by others. Users also have the legal ability to bring cancellation actions against trademarks they perceive to be unjustified. In its arguments, OHIM noted that the actual number of cancellation actions was small. In 2009, for example, there were approximately 750 cancellation actions filed for which less than 50 percent claimed non-use.

Policy entrepreneurs at OHIM drew from hard lessons they had learned from protracted negotiations required to reduce fees to argue that the governance structure of the CTM would have to be modified if OHIM were to live up to the agency’s legal requirement that fees remain in line with the costs of application processes. They sought to make the case in the strongest possible terms that the governance and decision making structures by which the agency had to make policy decisions took too long and gave too much power to interest groups with a vested interest in retaining the status quo. They suggested that the Commission’s biannual review of CTM revenues and expenses that was agreed to in September 2008 should be written into law in order to prevent bottlenecks in the future adjustment of fees. Their brief to the evaluation team recounted past difficulties:

This extremely large reserve came about because of protracted inaction by the competent authority to adapt fees to the reality of operating expenses. This allowed the reserve to grow far beyond any reasonable need. No action could be taken because of the governance provision concerning the setting of fees. *The role given to Member States by the current legislation in the fee-setting process led to paralysis to the detriment of users of the system.* If this institutional arrangement is not changed, there is a real risk of a repeat of such paralysis. ... Beneficiaries should never be in the position to vote on the level of fees in which they have a direct interest should a further reduction of the fees need to be undertaken in the—not unlikely—event of the reappearance of substantial annual surpluses.²⁹ [emphasis added]

In an earlier EU evaluation study, published in 2009, that had criticized the problematic governance structure of OHIM and the creation of the Cooperation Fund, policy experts also advocated for institutional reform saying: “In fact, the agency [OHIM] contributes to achieving objectives at [the] EU level (internal market), it serves the interests of enterprises (underrepresented in the governance system), and it cooperates with national agencies in the Member States. These three categories of interest are not balanced in the agency governance.”³⁰ The evaluation report also recommended that the Board and the Management Committee be combined into one governing body, the form used by most Commission agencies.

²⁹ OHIM, “Contribution to the Study on the Overall Functioning of the Trade Mark System in Europe,” January 2010, p. 4.

³⁰ “Evaluation of the EU decentralized agencies in 2009,” Final Report (December 2009) Volume III, pp. 214-215. Cited in OHIM, “Contribution ...” January 2010, p. 7.

OHIM's managers could already see the rise of a new budget surplus. They estimated in 2009 that the accumulated surplus would amount to about €300 million, even after accounting for the Cooperation Fund and a contingency reserve. They doubted that this amount could be spent to ensure that CTM users would benefit and that the use of funds would be focused and controlled. OHIM's top managers, by contrast, argued strongly that the surplus be returned to the users themselves and, in fact, had developed a detailed plan for doing so.

A new president of OHIM would be in place by October 2010, and the inevitable transition to new leadership would surely prompt further reflection, action and ongoing political conflict. OHIM was recognized as a benchmark for Europe, but the process of translating its achievements to national offices was anything but agreed upon. During the second presidency of OHIM, the agency had begun a deep shift in its culture and administrative arrangements from a reliance on growth to a focus on analysis, digital mediation, transparency, and productivity. The results of analyzing and measuring performance, using what are now standard e-business methods and tools, and working with users had achieved impressive improvements in productivity and transparency that held promise for increasing economic vitality and competitiveness throughout Europe. During the next decade the structure and potential of a harmonized European trademark and design system would be brought into sharper focus as a complex array of institutions and political actors continued to mobilize and advance their perceived interests.

Discussion and Conclusions

This exploratory paper has sought to briefly introduce recent theory and research, based on a long institutionalist tradition in political science, on temporal and feedback processes in strategic management and institutional development. The link between attention to time in institutional development and strategic management has been thin and focused primarily on policy entrepreneurs and their ability to leverage timing, sequencing, and coalescence around focal points. But there is much more to the connections between strategic management and institutional development over time.

I have used the case of a layered, multi-institutional digitally mediated policy regime, European trademarks, to illustrate some of the core concepts and findings of recent institutionalist research. In this account, digital technologies are not leading to the demise of bureaucracies and political institutions. By contrast, they are completely embedded within institutions. Although embedded, they exert more or less independent influences as well as highly mediated influence. These effects include, first, changing the possibility space for elite decision makers; second, inclusion of a set of actors, technology specialists, who by virtue of training and professional standards seek consistency and efficiency above autonomy and power and who sometimes play strong roles in institutional network development; third, attributes of digital systems make standardization more attractive; fourth, a type of technological institutional isomorphism plays out normatively through logics of appropriateness, mimetically, and as political actors seek to secure resources.

Institutional developments at OHIM illustrate a range of mechanisms and tendencies one might expect to find in all digitally mediated institutions in democratic regimes. The following observations, pointing toward "propositions," sketch the outlines of a research program to test some of the observations made in this paper. A few examples follow: Digital mediation tends to increase the force of "lock in" in institutional systems and standards making them even more difficult to change than they are when institutionalized. This is the case because digital systems raise initial investments in asset specific expertise, relationships, and physical capacity. Digital mediation accelerates standardization because interoperability and shared information benefit all parties, even when they are competing for other resources. The desire for political actors to solve coordination problems by settling on a focal point, even when it is suboptimal, is strong. Technology, or web-based systems, make it easier to build transparency which then strengthens interest groups by giving them easier access to information, communication channels and tools. When productivity gains can be demonstrated (or when stakeholders believe they will follow from technology investments), digital tools, services, systems are more likely to be employed - if and only if decision makers actually want more efficiency or productivity. Agencies that operate by law on a fee for service basis, such as OHIM, do not necessarily have an incentive to become more efficient, but they must account for balance between revenues and operating budgets. Interoperable, digital standards and systems influence interests, preferences, resources, channels, and the sense of the possible and desirable of political actors in the broader institutional network.

The CTM was widely feared by national office officials as a substitute for national IP instruments but national trademarks and designs actually have increased in most European countries as the CTM volume has increased, although all national increases have been at a slower pace. These are the types of unanticipated effects that add richness and construct validity to longer term institutional development approaches. Similarly, OHIM has not replaced intermediaries -- national and international firms that manage brands and intellectual property -- but it has influenced their business models as well as their ability to operate digitally.

The Cooperation Fund was proposed as a play by Member States to seek rents from OHIM, to free ride on its investments in technological, human and social capital. Although establishment of the fund was greatly resisted by OHIM and negotiations continued for several months, OHIM lost, in part, because of the initial design of its governance structure, in part because of European politics. The Cooperation Fund was criticized vigorously yet has been implemented. Over time, however, OHIM has been able to forge relationships with modernized national IP offices; has been able to retain control and to shape the portfolio of cooperation projects; and has been able to frame the actual terms of use of the Fund. It has thus resisted becoming technical support for the Member States or simply a source of IT funding. By invoking its identity and the argument that its core mission is harmonization of the market, OHIM has been able to use the Cooperation Fund projects to increase Member State support for standardization, interoperability, shared data and classification systems. As a variety of focal points have developed--standards, shared classification ontologies, shared systems--the Cooperation Fund projects, digitally mediated by definition, have accelerated the diffusion and acceptance of OHIM's conception of a modern, highly integrated, multi-level trademark system.

While the layering of institutional arrangements is important, so is the layering of logics. In this case, computing logics are juxtaposed with subsidiarity, territoriality, the social contract between states and the civil servants who inhabit public bureaucracies. The logics of reputation and framing of interpretations are critical to move from a focus on internal developments at OHIM to networked governance in the European trademark and design regime or domain. OHIM becomes the benchmark for Europe. How does this happen? Large businesses and large intermediaries support practices at OHIM and make comparisons to their experiences with national offices. EC officials discuss and "take credit" for an EC agency success in handling the public's money well, sustaining innovation, furthering public sector productivity. Their speeches and use of OHIM as an example legitimize the developments and make them visible throughout Europe. OHIM has as its mission to develop harmonization so they actively pursue outreach through training judges, training examiners, hosting national office staff, etc. As a benchmark, the pressure increases for isomorphic tendencies to increase in Europe that are normative, mimetic and coercive.

What can we say about the public policies developed and administered by OHIM and their political effects? There is no doubt that so far digital developments have been built with large firms in mind. Those at SMEs have been consistently less satisfied with online systems although this is changing as OHIM focuses on usability. It may be that small users who file less than ten trademark applications per year don't build enough familiarity with OHIM's systems to use them effectively. On the other hand, the policy of the CTM offers substantial protection to a host of small, entrepreneurial firms that might easily cross national boundaries in Europe and beyond, but that need protection of intellectual property to do so. The Service Charter developed by OHIM for its users essentially says to businesses "this is what we can do for you; this is what we can promise you." The policies of the CTM, like other trademark policies define eligibility, channels for application and opposition filings, appeals procedures and more. In an indirect, but powerful, way, the CTM is playing a role in shaping a European identity for businesses. The CTM and related public policies are reshaping national IP policies in Europe. First, the administrative arrangements and the expertise developed in the civil service at OHIM have shifted the sense of what is appropriate and legitimate for a modern government agency. These effects are felt directly by national trademark offices in advanced industrial states and, to a strong extent, by newly democratizing states seeking to modernize and to build effective policies and state capacity. For example, the Czech Republic is a frequent partner in collaborative activities with OHIM and an increasing number of Western European states meant to build networked capacity and shared systems. On the other hand, the Hungarian office has allied at times with the Benelux office in mounting legal and administrative opposition to OHIM and the applicability and use of the CTM. As a relatively new policy instrument, the CTM and its boundaries are under political contestation that is ongoing.

The internal policies and administrative structures that have shifted the internal culture at OHIM from a traditional public bureaucracy focused on procedure rather than output to one intensely focused on analysis of processes and on performance plays a role in advancing a vision of a new type of civil service and a new type of social contract between states and their public employees. Whether this is an early event and thus powerful in its ability to chart a path is, frankly, impossible to say. It faces formidable opposition and resistance by other political actors. Yet businesses that interact with OHIM may exert pressure on national agencies to move in these

directions by pressing for change in administrative arrangements the underlie service modes and levels to business.

The political effects of public policies and institutional developments at OHIM may be most strongly exerted on national trademark offices rather than on traditional interest groups in civil society. Clearly, the surplus generated at OHIM mobilized state-level actors to cooperate to make a collective grab for resources and to structure an ongoing channel by diverting a stream of revenue from renewal fees from OHIM to national offices. The Commission plays a delicate role in these contestations trying to balance the interests of states with the supra-national OHIM.

Administrative arrangements have built human capital within OHIM and beyond its borders. OHIM's policies of transparency and making trademark and registry data available has built human capital, the ability of businesses to make their own determinations re trademarks and oppositions. By externalizing this formerly tacit knowledge as a matter of policy, OHIM has educated businesses. While these are hardly redistributive policies, the learning effect and knowledge sharing open up the policy world of trademarks making these state-operated protections more accessible to individuals and organizations and, thus, changing the economic and political landscape in Europe.

It should be clear from the centrality of institutions in politics and from the case example that ubiquitous computing is as much embedded within institutions as it is "institution free," as denoted in Gov 2.0 and many accounts of social media in government. Institutional analysis, using long term, path dependent processes, should be integral to research on digital governance.

Figure 1: Total Trademark Applications by Office

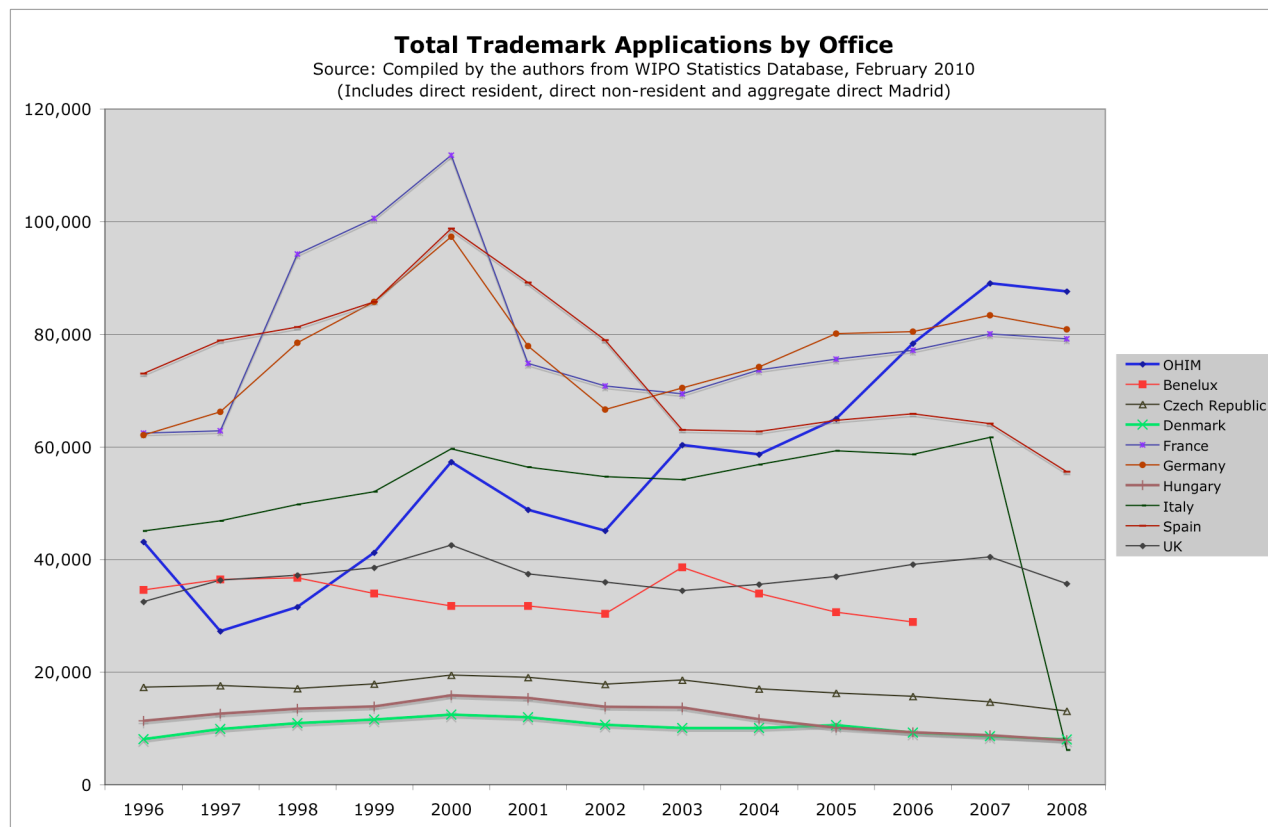


Table One: OHIM Organization Chart

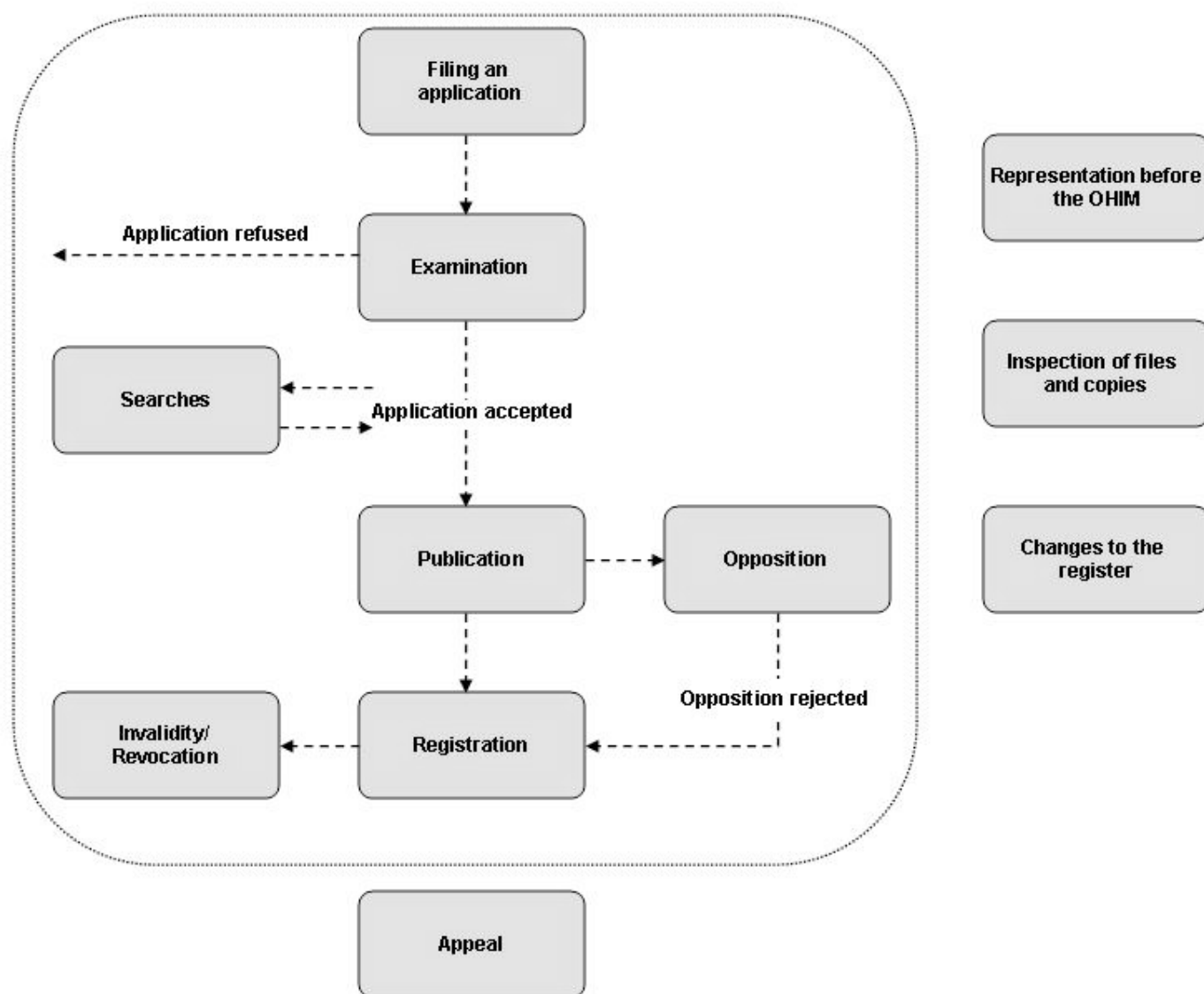
Source: <http://oami.europa.eu/ows/rw/pages/OHIM/institutional/organisationalChart.en.do>

Accessed, August 1, 2010

Chairperson of the Administrative Board Chairperson of the Budget Committee	António CAMPINOS Robert ULLRICH
President Vice-President	Wubbo de BOER Peter LAWRENCE
Boards of Appeal President	Paul MAIER
First Board of Appeal Chairperson Members	Théophile M. MARGELLOS David KEELING Carlo RUSCONI Philipp VON KAPFF Ulla WENNERMARK
Second Board of Appeal Chairperson Members	Tomás DE LAS HERAS LORENZO Giuseppe BERTOLI Maria BRA Gordon HUMPHREYS Hani SALMI
Third Board of Appeal Chairperson Members	Théophile M. MARGELLOS Giuseppe BERTOLI Maria BRA David KEELING Carlo RUSCONI Hani SALMI
Fourth Board of Appeal Chairperson Members	Detlef SCHENNEN Elisabeth FINK Fernando LÓPEZ DE REGO Agnes SZANYI FELKL
Fifth Board of Appeal Chairperson Members	Paul MAIER Gordon HUMPHREYS David KEELING Agnes SZANYI FELKL
Registry Head of Service	Jakub PINKOWSKI
Department for IP Policy Director	Vincent O'REILLY
Department for Designs and Register Director	Peter RODINGER
Finance Department Director	Hans JAKOBSEN
General Services Department Director Head of Service - Coordination Head of Service - Performance	Miguel Ángel VILLARROYA SÁNCHEZ Jörg WEBERNDORFER Timea HOLIK
Human Resources Department Director	Hugues BELLO
Information Technologies Department Director	Marc VANAECEN
IT Development Service Head of Service	Jean-Marc NICOLAÏ
IT Infrastructure & Operations Service Head of Service	Eamonn KELLY
Institutional Affairs and External Relations Department Director Deputy Director Deputy Director	Andrea DI CARLO Etienne SANZ DE ACEDO Ignacio DE MEDRANO CABALLERO
Quality Management Department Director	Nathan WAJSMAN
Business Analysis & Project Management Support Service Head of Service	Rainer TRETTER
Cancellation and Litigation Department Director	Beate SCHMIDT
Coordination of activities relating to litigation in CTM and Community design cases: Director ad personam	Oreste MONTALTO
Trade Marks Department Director	Juan Ramón RUBIO MUÑOZ
Service 1 Head of Service	Hendrik DIJKEMA
Service 2 Head of Service	Birgit Holst FILTENBORG
Service 3 Head of Service	Blanca ARTECHE ARBIZU
Service 4 Head of Service	Ralph PETHKE
Trade Mark Support Service Head of Service	Alain RASSAT
Quality Matters Service Head of Service	Wouter VERBURG
Internal Auditor	Javier RUJAS MORA-REY

Table 3: OHIM Community Trade Mark Flowchart

Source: <http://oami.europa.eu/ows/rw/pages/CTM/regProcess/regProcess.en.do>



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