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Communications of the **A**ssociation for **I**nformation **S**ystems

BETWEEN ETERNITY AND ACTUALIZATION: THE DIFFICULT CO-EVOLUTION OF FIELDS OF COMMUNICATION IN THE VATICAN

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ABSTRACT

Most research on structuration or the appropriation of ICT in organizations has put aside the problem of dyschronies. It has not taken into account the differences in nature, speed, and temporality of changes that co-exist within an organization. To address this limitation, the author of this paper suggests a model based on the theory of practice and neo-institutionalist perspectives, so as to make sense of the co-evolution of intra-organizational fields. This model, which proposes a balance between various institutional tensions, has been worked out inductively from a longitudinal case study on communication fields within the Roman Curia, the administrative headquarters of the Catholic Church located in the Vatican. These tensions are related to socio-technical, socio-theological, socio-organizational, and socio-economic areas. A set of propositions regarding the link between intra-organizational fields and tensions and the relationships between intra-organizational fields (parallel, convergent, and competing evolutions) is proposed.

Keywords: Dyschronies, structuration, intra-organizational fields, communication; medias, ICT, Roman Curia.

I. INTRODUCTION

The structuration or restructuring of an information field in organizations has been the subject of numerous American and French studies.

Alongside the work of "structurationists" [Barley, 1986; Bouchikhi, 1991; Orlikowski, 1992, 2000; Walsham, 1993; Desanctis and Poole, 1994] stands research based on Actor-Network sociology [Monteiro, 2000, 2004], innovation theory [Flichy, 1995; Alter, 200, 2003], practice theory [Kvasny and Yapa, 2005; Levina and Vaast, 2005], critical realist sociology [Dobson, 2002; de Vaujany, 2003; Carlsson, 2004]; and temporal theory as developed by Emirbayer and Mische (1998), and [Cousins and Robey, 2005]. All of this research discussed the dynamics of appropriation of information technologies. Moreover, it explored how the design and use of such technology could duplicate or even transform the social structures of organizations. Despite the seemingly diverse approaches of these studies, a common field of research has emerged: that of ICT related practices. Orlikowski (2002) defined a 'practice' as "a recurrent, materially bounded and situated action engaged in by members of a community." Thus, studies which focus on practice correspond to research in business (particularly those related to Information Systems), sociology (innovation), human-computer interaction (HCI) and economics (information and innovation), all

of which address the situated nature of interaction, its connection to the material nature of an object, and the routine nature of collective activity.

This large body of vigorous and creative research (see the analyses of Rose, 1998; Jones, 1999; Jones and Karsten, 2003; Jones, Orlikowski and Munir, 2004 for structurationism), has however emerged from the establishment of a model of sociotechnical dynamics that resists pure determinism. Indeed, the growing and justified interest in the appropriation of computer commodities involves, with increasing frequency, the autonomous and endogenous creation of models of information fields. In criticizing the most widely accepted research on innovation, Alter (2000, 2003) notes the complete absence in literature of any sort of discussion on *dyschronies*, i.e. temporal shifts in nature or the asynchronous rhythm of changes that occur in the same organization:

Analysts of change or innovation too often push aside the question of temporal conflicts as a representation of dyschronies. Thus, some will become interested in technological change, others in changes in business methodologies, others in changes in customers' relations, and others in changes in career development. Each will treat his/her question independently from other questions, ignoring that the fundamental question is that of juxtaposition, of interdependence and of the continuous character of these changes.

The mechanisms of competition or juxtaposition of sociotechnical trajectories and of isomorphism and convergence are frequently neglected in modeling. The above quotation seems particularly relevant to an information system in which a number of components will analyze the development and/or implementation of a technology. Of course, the context is usually delineated at the outset and parallel changes (those occurring in other fields) are noted, but essentially only as props. Ultimately, the notion of conflicting processes, or at least of conflicts in temporal situations with actors associated with the processes, is rarely taken into account.

In response to this criticism, the study that follows attempts to bring to light the dynamic of the design, and the appropriation of ICT in one particular case study. We are interested in a particularly old organization: the Roman Curia and its Information and Communication System (ICS). In order to shed light on the dyschronies suggested by Alter, we will proceed with a multipart modeling of the life of this organization, simultaneously studying the general dynamic of its social structures and the dynamics of its various fields of communication (radio, television, press, network technologies, Internet, etc).

We hope to understand *how the different media-related fields of the organization are structured with regard to each other*¹, at times joining dynamics of co-construction, and at times more competitive dynamics. We believe that the dynamics of different intra-organizational fields in the Curia can be understood as a balance between four institutional tensions: the socio-technical tension, the socio-theological tension, the socio-economic tension, and the socio-organizational tension. Our thesis is as follows: in order to be understood, the structuration of a field of information, and more broadly the construction of fields of communication, must be considered as

¹ In marked contrast to the work of Bouchikhi (1991), Walsham (1993), or Orlikowski (1992), our aim is not to understand the phenomena of structuration linked to any field in particular. Instead, it intends to make sense of the dynamics of the co-evolution and co-structuration of intra-organizational fields. Thus, if Bouchikhi is looking to understand “the shift from a reality initially nonexistent, then diluted and undifferentiated within a global organization, to an autonomous field with a specific status in the formal structure of the organization and its very own mechanisms of regulation” (1991), we are looking instead to understand the nascent or existing relationships between intra-organizational fields.

multifaceted and conflicting historical dynamics, and thus the dyschronies that cohabit within the Curia must be acknowledged.

First, we will provide a general context for our study, the statement of problem, and the method used. We will also highlight the seminal events in the history of the ICS of the Curia, mainly its taking over the distribution of the tools of communication from the Vatican. We will then explore the dynamics of the design and appropriation of more recent communication and information tools, focusing our analysis on the emergence of the Internet and its relation to other fields of communication. Finally, we will give our analysis of the overall institutional tensions at work in the dynamics of multiple organizational fields.

II. STATEMENT OF PROBLEM, METHOD, AND CONTEXT

We first explain the problem and method used to understand the dyschronies at work in the formation and evolution of ICS fields. We then propose a synthesis of the history of information and communication tools of the Curia. This second section, based on a previous study done on this organization, will permit us to introduce and contextualize the more recent dynamic of the structuration of the field of ICS in the Curia, particularly in the years 1980 - 2000, on which we have chosen to focus our analysis.

STATEMENT OF PROBLEM AND RESEARCH METHOD

In a previous study (see de Vaujany, 2006), we produced a review of the ICS of the Curia from its origins to today. We used a rather broad definition of IS, as suggested by Reix and Rowe, for whom an information system would be "A set of social actors who memorize and transform representations, via information technologies and operating modes" (2002).

In this paper, we focus the analysis on more recent ICS in the Roman Curia, both internal and external (and particularly on communication). The notion of communication implies that social actors are capable of communicating their representations through information technologies and operative modes (internal as well as external).

We adopt a longitudinal vision of the lifespan of the media in use² by delineating the historical phases of different fields of technology (all centered on communicational aspects). More broadly, we draw on the historical method of analysis that emphasizes a growing interest in IS [Bannister, 2002]. Recently, historical research on organizational IS has multiplied. As evidenced by the work of Porra, Hirscheim, and Parks (2005) on the IS function at Texaco, the work of Yates (1999, 2005) on the uses of ICT in the insurance industry, the MIS history project at Harvard [McKenney et al, 1995], and numerous other studies, there is a growing interest in the historical study of IS.³

But what exactly is a historical method for studying IS? In many respects, it is very similar to a case study [Yin, 2003], and particularly to the most interpretative version thereof. The principal differences are time (a historical study is necessarily more remote), the sources available (more documentation for the historical approach), and the institutional and social context (often very different and departed from that of the researcher, which can be advantageous for his degree of objectivity). But despite these differences, the similarities between the two methods of study are manifold. Case study method and historical method both come from reports structured and centered on a phenomenon, often analyzed in a theoretical context. In accordance with a strong new tendency in IS case study methodology to depend with increasing frequency on multiple

² Explicating all the dyschronies of an organization seemed too ambitious for a structure such as the Curia. We therefore adopted a rule of partial dyschrony in focusing our analysis on a group of actors sharing common resources and linked by multiple technical interdependencies.

³ In fact, rather late (Bannister 2002).

interpretations [Walsham, 1993, 1995], historical study is also experiencing (and has been for some time) a shift toward interpretative methodology. Collingwood (1993) thus defined history as “the study of human thought”. The reconstruction of various participants’ points of view, intents and interpretations of action long ago supplanted simple observation of facts. From a technical point of view, the historical method depends on the various ‘traces’ left by history: correspondences, books, objects, games, commodities [Stanford, 1986; Marrou, 1954]. It also depends on the reading or rereading of numerous secondary sources, particularly those written by earlier historians or experts on the subject at hand.

In our study of the Roman Curia, the collecting of information was done in two stages. We started by assembling both internal and external documents on the history of the Roman Curia and its media (press bulletins, booklets, websites; major works on the history of the Curia, news articles, scientific journal articles). In addition to this library research we met with several historians specializing in parochial organizations (in Lyon and St. Etienne). We thus streamlined our bibliography and our interviews, pinpointing certain aspects of parochial history [de Vaujany, 2006].

With the support of the pontifical council for social communication, we were able to conduct interviews in Rome (see Appendix A 1.2) with the directors of media under our consideration. We hoped to record the ‘oral histories’⁴ of the different ICS of the Curia from its principal participants. We were also able to acquire more internal and external documents on the media of the Vatican and the Curia (see Appendix A 1.1) during its most recent evolution, from WWII to the present day. This allowed us to develop an outline of the various ICS and to differentiate one from the other.

In fine, the construction of this body of documents and living data was done in part through case study methodology [Yin, 2003]. More generally, we attempted to understand the dynamics of the structuration of media-related fields by means of concepts proposed by Bourdieu and Passeron (1970), Bourdieu (1970, 1979, 1984), DiMaggio and Powell (1988, 1991) and Scott (1995). The theory of practice and the neo-institutional approach helped us understand the concurrent, parallel, and convergent dynamics between the various media-related fields. They also allowed us to model the transformations, reproductions, reinforcements, and circumnavigations of the social structures linked to each of these media. In particular, practice theory and the neo-institutional approach helped us understand the evolution of internal roles (participants at the center of a field) and external (positions as relating to one field or another). From this point of view, the study of media-related actors was the most interesting: it involved relational roles⁵ (with a high number of participants above and beyond the organization, such as priests, journalists, and network engineers) as well as non-relational roles (such as the directors of a language team at the Radio Vatican, a very local and particular function).

The result was presented to the participants involved for feedback, enriching our overall final interpretation.

Our objective is to better understand organizational dyschronies by analyzing the relative dynamics of different organizational fields. We are trying to understand how dyschronies are formed (especially between different intra-organizational fields) by means of an analysis grid based on neo-institutionalist studies and on the practice theory of Bourdieu. As per the suggestion of Alter, we will consider the development of an organization as “a set of elements in

⁴ “In the social sciences, the oral history is a particular form of interview, the narrative interview, over the course of which the researcher (who may be a student) asks the interviewee (...) to tell him all or part of his lived experience” (Bertaux, 2005).

⁵ “Relational roles” implies an “alter ego,” another person who has “a complementary position in the social order” (Barley, 1990): a mother and child, a creditor and debtor, a professor and student, etc. They are often built in an inter-organizational context.

the midst of transformation, evolving at different rhythms according to varying business techniques and actor rationales, and the encounter with which provokes temporal conflicts” (Alter, 2000).⁶

A REVIEW OF THE DYNAMIC OF THE LONG-TERM STRUCTURATION OF THE ICS OF THE CHURCH: THE EMERGENCE OF THE MAJOR MEDIA-RELATED FIELDS

The three major turning points in the history of ICS were the invention of the printing press in the 15th century, the communication reform initiated by Pope Pius XII in Vatican II (and particularly its decree on the media, the “*Inter mirifica*”), and the development of information technologies and the Internet at the end of the 1980s [de Vaujany, 2006]. The de facto media convergence introduced by the penetration of this new media profoundly affected the relations between and frontiers of media-related fields.

Given these three turning points, we propose a tripartite history of the design and appropriation of various media by the Roman Curia.

The ICS of the Church as a mechanism of control and diffusion of doctrine: the convergent phase (15th century – 1948)

The biggest shock the ICS of the Curia has ever known is, perhaps, the arrival of the printing press in the 15th century, which took place at the door of the Vatican in 1487 (PROF-IMP⁷).

Initially, the most essential elements of the Church’s (in Western countries) vast body of knowledge were formerly transcribed by copyist monks of Catholic abbeys and monasteries (ENT-CPSC). Thus there exists during this period a strong isomorphism between the output of the religious orders and the system of knowledge distribution.⁸

The arrival of the printing press, concurrent with the arrival of the Reformation, would significantly upset this equilibrium. And if the first popes to come into contact with the invention (like Innocent VIII) showed a certain enthusiasm, concern quickly prevailed. The system of indexing was put into place in the middle of the 16th century [Aubert et al, 1975; Levillain, 1994]. It consisted of censoring and prohibiting a number of works now considered in the margins of Church doctrine.

But inevitably, inexorably, the Church began to lose its centrality in the system of diffusion and production of knowledge. Their authority was further undermined by Enlightenment philosophers and then by the French Revolution to the point that Catholic officials no longer had any control (ENT-CPSC).

A profound distrust developed vis-à-vis freedom of expression, and it was simply exacerbated by the creation of an independent press in the 19th century. Thus the Curia developed its own newspaper, the *Osservatore Romano*, in July 1861 (PROF-OSS). The early years were dedicated

⁶ Alter notes as well: “these conflicts of temporality have nothing to do with the results of poor management. They correspond to the relative autonomy of forms in relation to action. They also correspond to the fact that all the work situations in the same service industry or establishment do not evolve at the same tempo. Thus the ensemble appears to be a broken process, a constellation of pieces of innovations whose evolution is in no coherent harmony. This evolution is largely dyschronic” (Alter, 2000).

⁷ All of these acronyms refer to internal or external documents used in the case study. They are all referenced in Appendix A.1.

⁸ In fact, until the 12th century the abbeys played the central role of “the principal if not the only places of development and transmission of learned culture, profane as well as sacred” (Vauchez, 1994, p. 25). They were then replaced by the university system, also under the jurisdiction of the Church until the 18th-19th centuries.

exclusively to international politics and the lamentable situation of the Vatican (dispossessed of its states and of uncertain legal status). Moreover, “purely political problems were hardly ever addressed. Discussed instead were the justice or injustice of public acts and their consequences for the Catholic religion and for society’s morals” (SITE-OSV). But at this time, the newspaper was published by the only community considered truly relevant: the Catholic community. From 1870 onwards, it would become an opposition newspaper against the newly formed kingdom of Italy. Banned several times by the new national government, the Osservatore became over time the official means of communication of Holy See, supplanting even the *Giornale di Roma*, the official voice of the ancient papal state. Its status as such was officially ratified by Leo XIII who created the information agency of Holy See in 1885 (PROF-OSS).

The Osservatore would be followed by many publications run by congregations or institutions linked to Holy See, but its status always remained unique. As it was the official voice of the Church and the Church’s direct link to the Catholic community, it was the primary forum of communication. Therefore, the notion of a surrounding news industry did not exist.

Two innovations followed this flourishing of the written press⁹: the telephone, in 1886 (which would not be adopted by papal officials until the Latran accords of 1929), and the radio, in 1931.

The Radio project was launched in 1925 by the Vatican’s Head of Communication, Giuseppe Gianfranceschi, a Jesuit father, per the request of Pope Pius XI (ENT-RV; PLAQ-RAD; SIT-RAV). In 1927, he solicited the expertise of the renowned scientist Guglielmo Marconi. Marconi, a fervent Catholic, provided the work pro bono. However, he had to wait until the 1929 Latran Accords to launch the official construction of the radio antenna.

The inauguration took place February 12, 1931, during which Marconi gave a famous speech: “I have the highest honor of announcing that in only a matter of seconds the supreme pontiff, Pope Pius XI, will inaugurate the radio station of the Vatican City state. The electric radio waves will transport to all his words of peace and blessing” (SIT-RAV). In the moments that followed, Pius XI delivered an equally as enthusiastic response, written in Latin, which was broadcast by radio to Catholics all over the world. The Holy See subsequently put the Jesuits in charge of running the radio, and they remain so to this day.

Yet the scope of this new media was not entirely grasped, and for several years radio usage remained sporadic and occurred only during important Church events. (“I believe that at its birth, we did not really understand the potential of this medium, of the fact that this could allow the pope to develop an international form of communication” ENT-RV.) Therefore, for more than fifteen years the radio remained in line with the standard forms of communication of the Curia.

The growth in power of the radio in the Curia’s communication strategy occurred during the 1940s, and especially after the war. Increasingly, the media, suddenly multilingual, was ubiquitous and a veritable form of mass communication. Along with the *Osservatore Romano*, Radio Vatican became a means of uniting Catholics all over the world.

Its expansion would soon be accelerated by major changes in the Church’s communications strategy.

The entrance of the Church and Curia into the global communication and media forum (1948-1989): the phase of stratification and parallel evolution

The major turning point that marked the arrival of the second phase of the history of the ICS occurred in 1948. The Church made the momentous and conscious decision to open itself to new media, to global communication, and to a new attitude of participation, exchange, and listening (particularly under Pope John XXIII).

⁹ A boom which included many Catholic publications on the national level, as well.

The first indication of this new strategy was evident in the politics of Pius XII. He was the first to view the new media as a "gift of God" and a "miracle" and to begin to expressly integrate them into the working of the Curia. Accordingly, "... Pius XII is a completely unique character, because our Church, with regards to communication, particularly written communication... newspapers, current events... had always had a markedly negative attitude vis-à-vis liberty of the press and freedom of expression..."(ENT-CPSC). Though he did not change the Church's official stance, Pius XII was the first pope to truly appreciate the value of communication. In 1948 he created a commission for cinema¹⁰ ("January 30, 1948, by the letter of R.N. 153.561 of the Secretary of State of His Holiness, is instituted a commission for the consultation and ecclesiastical revision of religious and moral films"), which is often considered (incorrectly) as the incipience of the pontifical council for social communication. This commission claimed to be an organization oriented at new media, particularly at the cinema. Its objective was to add a moral component to the films of the era, and created an index system, which exists to this day.

During this period, Radio Vatican asserted itself as the Curia's primary means of external communication. It increased its broadcast channels (AM, FM), its programs, its languages and its associations with national Catholic radio stations (ENT-RTV). Little by little, it acquired a range equivalent to that of the *Osservatore Romano*. However, its perspective was less linked to an official stance than to the simple communication of the current events in Holy See and the Church.¹¹

Subsequently, in the 1950s, the desire on the part of the Catholic community for moral judgment by the Church on books and movies lessened considerably. The end of World War II, the economic boom, and profound social changes rendered the index system developed in the 16th century (and abolished in 1966) obsolete, as well as the cinema commission set up by Pius XII. ("These groups in charge of moral evaluation and acceptability of entertainment, broadcasts and certain services... became of less interest to people. Thus the demand for a prepackaged evaluation before forming one's own opinion, before listening or seeing for oneself, diminished. And this was in keeping with the times, with the 1950s, after the war. Everything seemed less traumatic" ENT-CPSC).

The biggest upset of this period would come under the pontificates of Popes John XXIII and Paul VI, with Vatican II. This Council instituted a new vision of the Curia with regards to communication. Particularly with John XXIII and after, the idea was to integrate with global community and understand the problems and spirit of the times. The Curia thus reinforced a nascent truth: the modern world was a media-based world.

The famous "Inter mirifica" decree of 1963, the contents of which developed gradually (see Appendix A.4), underscored this awakening. Beyond the radical embrace of new media and freedom of expression, the decree also outfitted the Curia with a new agency (which had already been instituted in 1959 as a permanent office of the secretary by a constitution by Pope John XXIII): the Pontifical Commission for Social Communication (in the French, CPCS), whose mission was to understand and promote the Church's social communication. This commission was subsequently moved to the exterior of the office of the secretary (see Appendix A.4) and given an "executive" status, with which it directed the cinema and press of the Vatican.

The decree also launched a worldwide newspaper for social communication.

Simultaneous with this, the commission on cinematography was absorbed by the CPCS.

¹⁰ More precisely: Pontifical Commission for the Study and Ecclesiastical Evaluation of Films on Religious or Moral Subjects.

¹¹ We will return to this fundamental point later, on which are constructed or deconstructed certain legitimacies of our fields of study.

In the 1960s, the Curia entered an entirely new phase with regards communication. This incipient evolution would be confirmed by the radical changes to occur in the 80s and 90s.

The medium of radio continued to expand (at a notably more rapid pace than other medias¹²) while several other tools made their debut: the pressroom in 1966 and audience room in 1971 (under Paul VI¹³), television (CTV) in 1983, and the Vatican Information Service (VIS) in 1991 (under John Paul II). The CTV was and is a limited organization, a small studio that acts primarily as a centre of technical retransmission (ENT-RTV). Furthermore, it is in fact not a new branch of the Curia's media network, as the Church made a failed foray into television in the 1950s, with the aid of France ("In 1955 France made Pius XII an unexpected offer of a television studio, while it was still under the SECAM system. It was all brought here in a huge hangar... and it never even worked! They didn't have the necessary expertise, and we asked what could be done, but the problem remained..." ENT-CPSC).

These new media tools joined those already in use for global communication, with specific roles. But at the end of this period radio had emerged as the dominant form of media of the Vatican, broadcasting in 34 languages and in shortwave, longwave, FM, by satellite and just recently (in 2005) by Podcast (ENT-RV).¹⁴

Pope John Paul II's enthusiasm to strengthen the Church's channels of communication was evident in the mid-1980s (ART-VA; BON-CPSC). To this end, in 1984 he hired Navarro-Valls, who would become one of the most remarkable spokesmen in the history of the Curia and is often considered the first secular press secretary of the Church.¹⁵ Formerly a correspondent in Rome for ABC, a Spanish daily, Valls made considerable contributions to the development of a strategy for globalizing the Vatican's communication channels, which had the full support of John Paul II. He was a master of subtleties and the notion of "on and off the record," and he rapidly developed his own style and touch.

Parallel to these developments in the pressroom of the Vatican were those in other media, all of which, per the request of John Paul II, maintained a significant independence from each other (ENT-CPSC).¹⁶

In 1989, John Paul II confirmed the autonomy and stratification of different fields of communication by a decision, which transformed the Pontifical Commission for Social Communication into the Pontifical Council for Social Communication. The main motivation for this decision was a desire for more independence from the secretary of state ("... if we stay within the secretary of state, we will remain dependent on the huge existing sector there, the diplomatic sector. And diplomacy must not obscure communication, for if so, misunderstandings are inevitable" ENT-CPCS). Thus, the transformation was achieved by a changeover from an executive status (notably with the pressroom) to an advisory status.

Hence, the Council left the Office of the Secretary (in which it had been part of the external section) to become a *dicastero* (a department of the Roman Curia, like any other). However, contrary to Paul VI's suggestion that all dicasteres remain outside the walls of the Vatican, the Council stayed inside Vatican City.

¹² However, this difference in pace and rhythm does not appear to pose conflicts of temporality, as each form of media evolved in its own "vacuum."

¹³ He is the son of a famous journalist from Montini, in northern Italy.

¹⁴ This is a type of Internet audio file.

¹⁵ In fact, he was the second, after Frederico Alessandrini under Pope Paul VI.

¹⁶ John Paul II wanted to avoid communication super-structures.

The arrival of a common media-related platform and the first internal tensions (1980-2006): towards a new phase of integration?

The third period was inaugurated by two major events: the creation of an information field (integral with the Internet) and the development of a means of communication in the modern sense of the term.

In the 1990s, the various media of the Curia appeared to undergo a partial integration, largely due to the appearance of the Internet.

Perhaps the first tentative absorption of one field by another can be traced to the creation of an Internet committee, directed by Navarro-Valls. The pressroom, which had recouped its autonomy by leaving the Pontifical Council for Social Communications, would play a significant role in the Church's new Internet site.

While the pressroom continued to assert its presence during this time, however, it did not necessarily attempt to unify other media around it.

It was not until 2005 that a real unification of media began to occur, with the convergence of CTV and Radio Vatican (which from now on would be chaired together). The motivation was, in fact, essentially financial; Pope Benedict XVI hoped to pool the resources of the two media outlets.

At the end of this period, the development of common technological platforms on the Internet also represented a significant shift towards the confluence of media-related activities.

At the same time, the Council for Social Communication was pursuing projects outside of the executive tasks it had lost. It was particularly interested in developing episcopalian committees whose aim was to promote the importance of communication in various dioceses worldwide ("We hope that each bishop will eventually have his own spokesperson, and a core communications group for his diocese, which will then be able to reassemble on a larger scale. The initial idea was to raise awareness among the bishops... because it is apparent that Rome has become interested in communication strategies long before local bishoprics. In general these local bishoprics have no great desire to get involved. Thus when Paul VI put the pressure on, he was the only one to do so, and he did it all by himself" (ENT-CPSC).

In the 1990s, other media continued with their independent courses of action. Congregations developed various publications distributed entirely independently; the new pope and his administration hoped to reconsider, if not redress, this strategy ("for example, each congregational council or dicastero has a publication. All of this is carried out in a completely dispersed manner; it's every man for himself... And aren't we losing a tremendous amount of energy, on every level? Is this really a positive direction? It's a decision that the current pope must make" ENT-CPSC).

At the end of this final period (and the beginning of the pontificate of Benedict XVI), there were numerous fields of communication but also an initial movement towards integration with the radio. Furthermore, the pontifical council was starting to see itself as an umbrella organization over the various fields of communication, and Benedict XVI and the Secretary of State clearly hoped it to be a possible fulcrum ("What should we do? Do we need a major, clearly-delineated coordination effort under the direct control of the papal office? If so, how? Right now we have many diverse, autonomous organisms, each doing what they can, little by little, with minimal control by the pontifical council... great! Is this really effective on the communicational level? I really don't know" (ENT-CPSC). As we will see in the following section, this need to harmonize communication strategy and to pool resources would be at the origin of an unprecedented convergence of communications. But even today, the major fields of communication remain as follows:

Table 1: The Major Media-Related Groups of the Vatican, 2006

GROUPS	MEMBERS	CONNECTION TO THE HOLY SEE	PRIMARY RESPONSIBILITIES
Radio	400 paid professionals of 60 nationalities and 20 different languages	Independent dicastere	Radio broadcasting : primarily, news broadcasts of the Vatican, the Church and the world at large
CTV	20 paid professionals	Independent dicastere, from now on directed by the president of the radio	Broadcast important events of the Holy See
Internet	About 20 paid professionals, many more external providers (notably Sun)	Independent dicastere	Universal window into the Holy See and the Church
Telephone	About 40 paid professionals	Independent dicastere	Telephone and telecommunications business
Office of the Press	NA	Independent dicastere, but at the same time the official mouthpiece of the pope ¹⁷	The official mouthpiece of the Holy See; the site of official declarations
Osservatore Romano	NA	Independent dicastere	Publish current news events of the Church, the Holy See and the world in the light of Catholic values
Congregational Publications	NA	Independent dicastere	Publish current news events of the congregations
PCSC	20 individuals	Independent dicastere	Study and publish communication phenomena

III. UNDERSTANDING ICS AND THEIR CURRENT APPROPRIATION BY THE CURIA: A MODEL BASED ON FOUR INSTITUTIONAL TENSIONS

After our discussion of the long-term dynamics, we now turn to the most recent period: the growth of the youngest field of information that relates to network technologies. We will study the development of this field and its co-evolution with the other fields of communication already in place.

THE RECENT DYNAMIC OF ICS IN THE ROMAN CURIA: THE EMERGENCE OF THE INFORMATION FIELD

The structuration of an information field in the Roman Curia is a very recent phenomenon, and was primarily catalyzed by the development of Internet technologies.

Everything began during the period between 1985-1991, with the first computer purchases and the progressive use of offline technology (see Appendix A.4). For most members of the Curia, computerization occurred more out of a 'necessary evil' than out of passion or interest. But as the technology was employed and its benefits became increasingly apparent, interest among certain key members (notably the heads of the dicasteres) in this new tool began to grow. Thus, by the end of the 1980s, with the growth of network technologies in the organizations, the notion of developing a Church database began to take hold. The Pontifical Council for Social Communication would take the reins. Initially, the CPSC and the Secretary of State envisaged a huge database run by Bayard Press (ENT-CPSC). It would be divided into geographical zones

¹⁷ Navarro-Valls, the director, is the spokesperson of the Holy See.

and based on proprietary technologies. Soon, however, various problems became evident, particularly the complexity of the task and its financing. The idea was abandoned. It would ultimately be taken up again, in modified form, in Latin America with the RIAL network (Red Informatica de la Iglesia en America Latina¹⁸):

We needed to be able to computerize and make available everything, using this equipment. So the first idea was this: we would make our own database, in which we would put all Catholic-related business. But what is distinctive about it is that all this information is the same for everyone, and it can circulate everywhere. So it can go everywhere. How do we regulate it? We must pay attention to our doctrine. The first idea was to solicit the help of Bayard Press. That began here, with a database full of Catholic-related information and documentation. And we then hoped to have something similar in France, in French; in Germany, in German... databases that functioned as large linguistic communities, if you will. The kind one could find on the Vatican website. At least, something we could find here! Almost immediately, however, Bayard Press said no. We didn't have the means! We didn't have the means to create a similar type of thing! We didn't have the means to create a database that could contain all of that, and that could be controlled by passwords, by different means of access, etc. It's simply not possible. So we moved on. We decided that we were part of this unlimited stream of information that circulated everywhere, and we had to find our place within it. Yes: "we were part of it." And indeed, very soon the Internet arrived, with its breadth of information and its superior databases. A South American cardinal stumbled upon the initial idea and came up with instead the idea of CELA, the Continental Episcopal Conference. We would create a network of computers that would exchange information with one another, and that were linked to the Holy See, and which would allow us to put all the information online in a Hispanic and Portuguese context. He was going to make our network. He began to build this network, but very rapidly it was absorbed by the Internet... (ENT-CPSC).

But despite this, the notion of putting online the message and the information of the Church did not die. It would have a second chance with the Internet, which rapidly and deservedly grabbed the attention of the members of the Curia.

The age of the Internet arrived in 1991 with a Franciscan sister from America, Judith Zobelein. Following an announcement from the Curia looking for someone capable of directing computer installations and minimal IT personnel, ("In those days, there were hardly any computers at all around here" ENT-INT), Sister Zobelein applied and was posted to Rome.

The beginning was far from easy. She and her team had to first make the Holy See and its key members aware of the importance of computer technology ("I still remember having to teach some cardinals how to use the mouse" TECH-WEB). The investment in computer technology was therefore initially quite limited and implemented in stages, dicastere by dicastere, so that in the early 1990s the results were hardly visible (ENT-CPSC).

With the Internet, much as with the first investments in computers, opinion was divided ("There were a lot of people within the Vatican community who thought it was not a good place for the Church to be, given all the negative aspects of the Internet" TECH-WEB¹⁹). But after John Paul II

¹⁸ See de Vaujany, 2006.

¹⁹ "And at the beginning there were people that were not really favorable and excited to go to the Internet. There were some people who did not even use a computer, who had doubt about it. There were a lot of people who pointed to all the bad things that were on the Internet... violence, pornography... and they wonder if it was an appropriate place for the Church to be. And then

took a clear and positive stance on the issue,²⁰ the notion of a Vatican website was embraced (“So when it was proposed to John Paul II, he immediately thought it was positive. You know, he was a man who wanted to go out, to evangelize, to meet people, to present to the people the message of the church. He was very much in favor of that” ENT-INT).

This idea was made a reality in December 1995²¹ with the creation of the Vatican website, <http://www.vatican.va>. It consisted of an image of the Holy Father, an Urbi and Orbi message, and an email address. It was one of the most simplistic sites at the time (ENT-INT; MERI; TECH-WEB; STERN). However, it was immediately immensely successful, and was broadcast all over the world. Indeed, 300,000 people from 70 different countries visited the site within its first 48 hours; a figure which today may not seem particularly impressive, but must be placed in the context of the mid-1990s. This enthusiasm exceeded even the wildest dreams of the Vatican IT team (“It was at that point that we realized that we were sitting on something that was explosive and alive” TECH-WEB). The first messages sent by visitors belied an intimacy and an unexpected attachment with the Holy Father:

I think we also opened the mailbox of the Holy Father at that time. And within two weeks there were four thousand emails. Which is not a lot today, but which was a lot at that time. We really had nobody assigned to respond to them. Most of them went to the Holy Father at that point. He wanted to read them, to know what people were saying. There were things like people who said, “My mother has cancer... You know what the Church says about death... My wife wants to divorce me, how can the church help me about that... “So very personal problems. You know they were talking to him as if he were next to them in their living room. (ENT-INT).

With this initial success, however, came problems of means and structure. Several messages sent during the site’s very first hours online demanded a response that Zobelein’s team was not really prepared to give (“Who would respond to requests for prayers or information and well wishes for Pope John Paul II?” CNS 1997).

In 1996, the status of Sister Zobelein’s team changed from that of ill-defined IT service to the official “office Internet”, in charge, not only of the Vatican website, but also of its computer network. However, the Church – more specifically the office of the press, under Navarro-Valls – remained responsible for the site’s content Navarro-Valls said his office, which coordinates all the information published by the Vatican, has the responsibility of overseeing everything posted on the Vatican site” (CNS 1997). An Internet committee was also set up and overseen by Navarro-Valls, but would be disbanded at the end of the 1990s.

The Vatican subsequently suspended the site for a year before unveiling a drastically revamped and improved version in Easter 1997²² (VIS, 1997), available in six languages (English, Chinese,

there were some very supportive persons, that were thinking it was a medium developing for the future, that you know, we all had to participate in. So, there were mixed reactions at the beginning. And the fact that John Paul II was supportive, was so favorable, helped a lot. From that point, everything went up. The Vatican had e-mails. They saw us a service provider that could provide services for the Vatican community” (ENT-INT).

²⁰ In fact, he had already had several opportunities to adopt new IT tools, most notably in 1990 during a day-long celebration of the Catholic media, whose theme was “the Christian message and computer culture.” The Pope had entertained a private audience of members of the computer and bible center, who brought a laptop with an electronic Bible and showed the Pope how to do an electronic search on Saint Peter (CNS).

²¹ The website of the Italian Catholic Church, la Chiesa Catholica, slightly predated that of the Vatican (FOR-TAL).

²² March 27, 1997.

Spanish, Portuguese, German, and Italian). More than 1200 documents were available on the new site.²³

The new website also corresponded to major organizational shifts. The Vatican abandoned Telecom Italia in favor of hosting the site themselves. In partnership with a company called Digital, the Curia developed its own technical resources (servers, routers, back up systems, etc.) and became its own internal provider. The entire network had very spiritual overtones; the principle servers (today housed inside the Pontifical Palace) were named after the archangels (Gabriel, Michael, and Raphael). Sister Zoebelin believed that as such, they would never get infected by computer viruses (TECH-WEB).

Parallel to this development of the Internet, from 1996 onwards an intranet inside the Curia began to take shape, with the aid of Digital and Sun Microsystems. The first email addresses with the domain “.va” were opened. The pontifical directory began posting its first local web addresses in 1997 (CNS).²⁴

By the end of the 1990s, yet another technical tool would catalyze the development of a field of information in the Curia: the development of an intranet-extranet for the Jubilee Year 2000 (JUBI-IT). It would serve as both an occasion and a forum to unite all papal ambassadors and to stimulate the exchange of emails and videoconferences.

From 2000 to 2005, the website, like many of the papal tools of interior communication, underwent several major evolutions. Its email system continued to expand, and numbered more than 1000 addresses by the end of 2004. The website developed in several other respects as well, notably with the addition of new menus, a virtual visit of the Sistine Chapel, and most recently the development of a new search engine. The ultimate product is a clear success, and had over 60,000 documents online by the end of 2005, about 10 million hits per day (and over 50 million at the time of the death of Pope John Paul II), daily connections from 125 different countries, and an astounding growth in visits from China. It is important to note, however, that the site's success is internal as well as external; many civil servants of the Curia use the site to access official documents (ENT-INT). Since 2004, every office is online. Amongst the larger users and subscribers, the site even affirms the celebrated congregation for the doctrine of the faith (ENT-INT; CONG-DOSEE).

But during this period, one must not overlook another surprising reality in network technology. If the majority of dicasteres and congregations had just a single page on the official Vatican website, some would go on to develop their own Internet technologies, email systems (many people sent us emails not associated with the Vatican, OD), or even different sites used by the dicasteres. The radio, the museum, the Pontifical Council for Social Communication, and the library also all developed their sites outside of the “.va” domain, using external resources instead (ENT-CPSC; ENT-RTV; ENT-INT; OD).

There were many reasons for eschewing the Vatican site (ENT-CSPS; ENT-RTV): bureaucratic red tape;²⁵ small bandwidth, in comparison to what was actually required; the need for

²³ Though audio files from Radio Vatican were also promised, they never appeared on the official site.

²⁴ However, certain groups, like the office of the press, elected not to be listed in the directory (“We already receive too much correspondence”, Navarro-Valls said. “The office of the press prefers to give its email address to journalists personally.” CNS 1997). Similarly, several addresses were listed as numbers, because some directors did not want their addresses to be too easily guessed.

²⁵ “But we could not enter into the system. It was not possible to enter into a system more official, like the APSA website [NDT, the congregation that physically housed the office of the Internet]. We could not assert ourselves in the curial system with all the restrictions on the insertion of text,

independence from the “official party line”²⁶ (“With the Vatican’s “.va” – its domain name – the constraints and slow speed of connection were so pronounced that we made a site with the domain name “.it” for the pontifical council. And we did not insert “.va”. Because it was not a machinery that allowed for flexibility.” ENT-CPSC)

In the particular case of Radio Vatican, the constraints seemed both technical and political. The need for reactivity, for “non-officiality” and neutrality – in short, for flexibility – precipitated the decision to develop a domain outside of the Office of the Internet.²⁷ Furthermore, the system’s activities used a streamlined technique in order to be easily accessible to many different types and teams of journalists:

We made the simplest possible systems. The goal was such that the average journalist could quickly grasp how it worked. We made simple interfaces, which allowed everyone here to upload information without being a technician. We did it so people wouldn’t have to learn new skills. Some departments had very limited resources and so we thought it was better that way. But as you saw, we tried to transition from a radio that was only on air to a radio that was also on the Internet. We also should have tried to get some written information out there as well. It’s true that the Internet and the radio are different ... the radio on air is broadcast, and no one says much about it later. We worked a lot in this respect, that is to say to develop a similar activity on the Internet. The Internet allowed us to introduce a certain multimediality ... it’s a written and aural form of media. And it’s also accessible in a great many languages. Soon, we will transition to a new and more powerful system of servers in order to have greater possibilities for publication. With this system we can do even more things than we can right now. For the moment we can’t do all that we want. The site does not allow us to produce forty languages at the same time, in 12 or 13 different alphabets.... That would be a very complete enterprise. Many sites offer contents full of rich and bountiful possibilities, but all in the same language. But if you must publish in Chinese, in Japanese, in Arabic, in Spanish, it becomes impossible. Technically, it poses enormous problems. Take, for example, Arabic alone. Arabic is written in reverse. The computer programmer with whom we worked had to develop a special software program to publish information in this language. And, he did it. (ENT-RTV).

Like the citation in Appendix A.3, these strategies for independence manifested themselves in a lack of respect for the original model of the Vatican website.

At the beginning of 2006, Radio Vatican was the primary media outlet of the Curia (in terms of means as well as audience), even as the Internet was gaining a presence at an incredible rate (ENT-RTV). On March 3, the Pope celebrated 75 years of media, which was also an occasion to unveil new aspects of the website to the press (CNS 2006; VIS 2006).

etc. It was necessary to ask permission for everything. The APSA site is much more “official.” Thus it was not really a forum for experimentation, like putting radio on the Internet. And there is another thing (...) they have very little personnel. They cannot guarantee a smooth functioning in the event of a breakdown, especially on the weekend.” (ENT-RTV)

²⁶ We will return to this central point in the following section.

²⁷ Even though a page for Radio Vatican is part of the official Vatican website (as of a visit on February 6, 2006), the link to the actual website does not work (the link is, in fact, written but non-active).

It is in the context of this proliferation of Internet projects and the success of the “official”²⁸ site that the office of the Internet finished preparing, in 2006, a new version of its site, a “portal.” This will be a point of entry to the entirety of external and internal Catholic websites, and will contain all aspects of e-learning. More interactive and thus less simply “documentary” than the existing version²⁹, it will have “java-based solutions to create online applications for content management, media-streaming, e-learning, and collaboration hosted on these sites” (ENT-INT). In doing so, the office of the Internet asserts its desire to distance itself somewhat from an image of the official party line and the rigidity of the current “.va” site with which it is now affiliated (“Everything that’s in Vatican “.va,” you know that it’s going to be the teachings of the Church, that it’s the message of the Church. The second website will be more a place to learn about the Church in the world... So it’s going to be a point of exchange, if we work for that. There will be a public element, and another that will be private... which means that someone from the Catholic organization can register and will be profiled then” ENT-INT). Increasingly, the office of the press and the Osservatore Romano will be the depository of the voice of the restrictive party line. On a more subtle level, it is becoming apparent that the website and its functions are being used as catalysts for interactions beyond the merely technological (during the world youth days, for example: “The idea is to have them [the participants] come back and have a place where they can study their faith, where they can meet each other online” CNS 2005).

Finally, the new portal will serve as a forum for collaboration between other forms of media in the Vatican (“Basically, we are all technicians here, we are not journalists. So we are looking for help from Radio Vatican for example, who does daily news broadcasts. Or we are also looking for cooperation with institutions that may have contacts that we do not have. So this will definitely turn out to be a collaborative project. That’s why it might take longer than we had foreseen” ENT-INT).

The development of a portal corresponds to a general tendency at the heart of modern-day Catholicism. This tendency is noticeable, for example, in the diocese of Lyon (“At the outset, it was rather basic. You had a list of parishes, a few events.... Today we’re increasingly oriented towards what we call a “portal.” We are encouraging everyone. We are encouraging parishes as well as groups in the service of the liturgy to have their own websites. The site of the diocese is the main window. It leads you to informational sites to sites on news and current events with loads of links to other associated websites” ENT-EVL).³⁰

Beyond these cases, it is clear that from 1996 onward the success of the Vatican’s Internet generated external competitors. Institutional pressures during this period, the media evolutions of the Vatican, the momentum fomented by a whole new generation of men and women in the Church all explain in part the development of new episcopal, parish, and continental sites (see FOR-TAL; SITE-EG-IT; SITE-CATHW; SITE-DIOC-HK; SITE-CEF). Very quickly, developing

²⁸ “Looking on a monthly basis there are about 125 countries that connect often from places like China and countries where Christianity is not officially present. I think we have about 8 to 9 million hits a day... That means a lot of people request information. Some people from different countries ask a lot of questions. For instance, What is the relationship between the Bible and the Koran? This is not a question we are going to answer. But it is all about the interest of the people to see what their Church is about, and relate it to their particular structure. Currently, the most requested part of the site is about the Holy Father. They feel he is their moral leader. People really want to see what he says. They really come to the site to find out instantaneously what he has to say, what he actually said. Beyond the local newspapers which often distort that. They actually want to get what he said” (ENT-INT).

²⁹ With 60,000 documents online and many different rubrics offered to visitors, it is unfortunately not always easy to find precise information on the Vatican .va website.

³⁰ The ensemble is part of an isomorphic movement that is more mimetic than coercive or normative (see Dimaggio and Powell, 1983).

countries, with the RIIAL already mentioned, but also with SECAM, will start to create their own Internet sites. The Secretary of Episcopal conferences of Africa and Madagascar is rolling out a project with “as its objective to bridge the gap that exists between the technology used in the North and that used in the South of the world and to facilitate dialogue between the Churches of the continent which will allow the expression of the true image of the African people” (Msgr. Monsegwo, Archbishop of Kinsagami and President of SECAM, Zenith, 2003).

In 1999, the bishop of Lyon, representing a national tendency in France, launched a website housed under the site cef.fr (ENT-EVL). The ensemble, brought about by Father Feroldi (who was trained in the Internet after a stint in Morocco), initially offered minimal content, but despite this saw considerable success, and then adopted more content from 2000 onward (“The site saw more and more traffic. Visitors knew that the official information... would be the priority on the site. If they wanted to verify information, they could then go to the main site of the diocese” ENT-EVL).

Throughout this entire period, John Paul II, like Benedict XVI after him, supported these new enterprises. However, both popes exercised considerable prudence with regards the status of the new tools. On the occasion of the World Day of Communication in 2002, John Paul II announced:

The Internet is certainly a new “forum,” which should be understood in the ancient Roman sense of the word as a public arena where political and business affairs were conducted, where religious needs were fulfilled, where the majority of social life took place and where the best and worst of human nature was exposed. It suggests a crowded and noisy place, and reflects the surrounding culture while at the same time creating its own new culture. This is all true of “cyberspace” as well, which is on some level a new frontier, which is opening to us at the beginning of this new millennium. As with all new frontiers, in other eras, this one is rife with dangers as it is rich with promises, and glows with the spirit of adventure that has characterized other great periods of change (INT-NVEAU-CARR).³¹

A RETURN TO THE FOUR INSTITUTIONAL TENSIONS VISIBLE IN OUR CASE STUDY OF THE STRUCTURATION OF THE INTERNET

We return to the evolution of the various media types of the Vatican in an attempt to explicate them as different intra-organizational fields in concurrence, all in dyschronic evolution with one another.

In the sociology of Bourdieu (1984), the idea of a field is used in order to “reveal the logistics of how social phenomena function, particularly those endowed with a certain autonomy with regards to global social structures. Bourdieu thus studied the scientific, artistic, and athletic fields, and demonstrated in each that a field is an area of competition and cooperation between actors looking to appropriate and accumulate specific capital that is circulating within that field.” (Bouchikhi, 1991). According to Bourdieu (1984), these fields “go in for a synchronic apprehension as spaces constructed of positions (or posts) whose properties depend on their position in these spaces and which can be analyzed independently of the characteristics of their occupants (in part determined by them).” How can one explain the dynamic of the evolution of these fields? From the perspective of the theory of practice, it’s effectively a struggle for capital³²

³¹ The same themes are apparent in a speech given by Benedict XVI during the World Day of Social Communication (MOY-COMB16).

³² Anything that can be accumulated exchanged and redeemed for profit (Bourdieu, 1979). Economic capital corresponds to a good or a means of production. Cultural capital corresponds to a collection of qualifications produced by a school or family. Social capital assembles all those social relationships which are at the disposal of an individual. Finally, symbolic capital is a very

(economic, social, cultural, and symbolic capital), which mobilizes actors in the fields (Bourdieu, 1984). The positions of each, determined by their ownership of capital, affect the spectrum of possibilities without necessarily determining the form of interactions. At the same time, the stock of a field's capital gives it a certain amount of autonomy ("The ability of those within the field to define its boundaries, thereby determining the degree of autonomy of a field, is intimately related to the capital," Leslie, Townley and Cooper, 1998).

In the continuation with Bourdieu's writings, neo-institutionalists³³ posit the existence of "organizational fields," or fields in which relatively homogenous organizations co-exist, along with all actors and exogenous resources necessary to the legitimacy and viability of these organizations (DiMaggio and Powell, 1983).³⁴ In order to explicitly consider the dyschronies, the differences of temporality and rhythm of changes in an organization, we now define the idea of a field from an intra-organizational perspective. An intra-organizational field will from now on be taken to mean a homogenous ensemble of organizational subsystems, as well as all the actors and endogenous and exogenous resources necessary to its legitimacy. It therefore makes sense with regards to both internal and external dynamics. Its legitimacy and endurance can be based on its relationship with other intra-organizational fields (an example: the radio can derive its legitimacy from fields linked to other medias within the Vatican), but also on its relationship with larger external institutional fields (a further example: the radio can also derive its legitimacy from international radios and their rules).

This notion of intra-organizational fields linked to extra-organizations requires some explanations. First, the idea is not a new one. Bouchikhi (1991) has already proposed studying how an intra-organizational field is formed in the context of the RATP³⁵, in order to explore the field in the context of micro-computers. So why not generalize the argument to the study of organized collective action? Indeed, by insisting on organizational roles (which are more or less relational), the structurationists (notably Barley) recall spaces of structured positions in the tradition of Bourdieu. In shedding light on the habilitation and the constraints that embody these spaces, and insisting on their uniqueness and autonomy, the structurationists (though not only they) clearly demonstrate the existence of intra-organization fields. However, they do not really recognize the possibility of the autonomy of the totality of a field that remains grounded in social frameworks, which are relatively all-encompassing. Giddens (1984), in his presentation on the notion of "region," insists on the existence of social subsystems, of space-times linked to specific rules and resources. But he is more skeptical when it comes to the possibility of the autonomy of sub-ensembles (see Bouchikhi, 1991). This idea seems less relevant because it infers homogeneity and an interdependence that makes less sense than the notion of organizational dyschronies. It is for this reason that we prefer to return to Bourdieu's notion of a field, and define that on organizational subgroups (i.e., intra-organizational fields).

The case of the Roman Curia presents four major intra-organizational fields: that of the written press (Osservatore Romano and the presses of various congregations); that of spoken communication (office of the press, press room, conferences); that of computers and the Internet (indivisible in the Curia); and that of telecommunication (radio and television).

specific form of social capital, linked to a certain honor possessed by an individual.

³³ According to Rojot (2005), "Neo-institutionalism believes organizations to be understandable only if one takes into account the fact that they are, on one hand, interconnected, and on the other, constructed by their environment. This environment exerts pressures that shape their structures, and to which they must adapt."

³⁴ DiMaggio and Powell (1983) define organizational fields as "those organizations that, in the aggregate, constitute a recognized area of institutional life."

³⁵ "Régie Autonome des Transports Parisiens", a French public company in charge of bus and subway activities in Paris.

These four domains are without a doubt fields since they correspond to spaces of structural positions; which in their construction depend on their specificity and their relative positions, and can be analyzed independently of the characteristics of the actors which drive them (even if this is the obvious result of their interactions). On the other hand, these domains clearly represent the autonomy suggested by sociology. They are the dicasteres with resources and specific means of functioning. Finally, they are spaces where specific strategies for acquiring forms of capital are deployed.

In order to better comprehend the relative dynamics between these four intra-organizational fields, we propose a chart of analysis which is based on the four forms of institutional tension: socio-organizational tension, socio-theological tension, socio-technical tension, and socio-economic tension.

The overriding motif that becomes obvious in this case study is the following: the more significant the tensions, the more dyschronic the evolutions of the fields. However, the less significant the tensions are, the more parallel and the more autonomous the evolution of the fields.

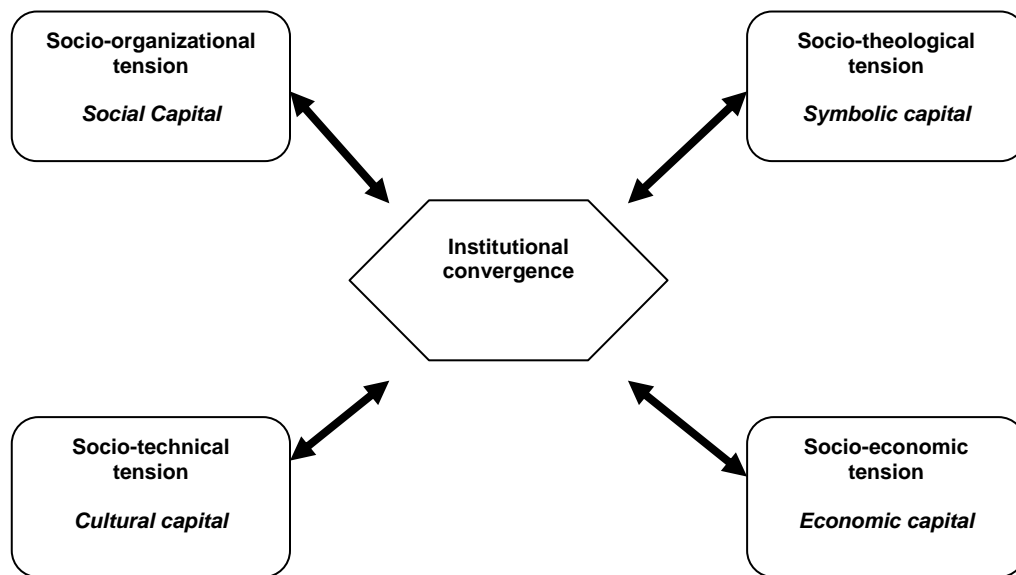


Figure 1. The major institutional tensions in the dynamic of intra-organizational fields

In accordance with the theories of Bourdieu, the different types of tensions should be considered as endogenous variables, integrated in a processual dynamic. They are the object of a construction linked to the strategies of actors who are looking to acquire additional capital, but which are largely the unintentional consequences of various actions (see Giddens, 1984). Nature and the level of socio-organizational, socio-theological, socio-technical, and socio-economic tensions result from the intersection of a multitude of activities of actors, the final form of which is largely unpredictable.

Socio-theological tension

Socio-theological tension is the tension which emerges most clearly from our case study. It illustrates the dividing line between the media and the official pronouncements of the Curia (today, controlled primarily by the office of the press and the Internet) and the current news media, whose credibility is based both on fidelity to and a certain critical distance from the official

party line (which is the case principally with the radio).³⁶ Some media, like the written presses of various congregations, are in a perhaps even more delicate state of limbo, where they must address issues of both internal and external legitimacy.

Behind all of this, it seems as though officiality is linked more with the written media, and current information with oral or visual media. However, the situation of the office of the press adds some nuance to this distinction. As always, the key elements of the message and voice of the Vatican are relayed by written communication (today, essentially the VIS, which corresponds to a circulation list).

Perhaps behind all this is the desire not to be associated with the famous ‘.va’. The temporality of fields linked to doctrine is not easily compatible with the reality of today. The proclamations of the president of CTV and the radio on this subject are unambiguous:

I had hoped to be able to create something within this [NDT of ‘.va’]. But the site is very much official and very much in line with documentation. We are very much in line with the times. We cannot be official in all that we say. Naturally, one could think that Radio Vatican would be in line with the Vatican. But I am not their spokesperson. In this sense that which is written and that which is transmitted over the airwaves are two different things. But on the radio, we have some programs that give off a more official character than others. In the variety that we propose, there are official programs. The DOC program³⁷ is central, it’s the two-hour news broadcast in Italian. At the end of the morning, we also have a news broadcast with this same official overtone. And this is a reference program for various other programs on Radio Vatican. This edition also has a written version which is afterwards posted on the radio website. And that is yet more official. But what the Swedish say in the evening on their program, I’ve no idea. That is not the official line. I hope they do a good job. But they know very well that they’re speaking to an audience that has no idea what the Catholic Church really is. So that is in effect a completely different type of broadcast. With the Internet, you have many different things. And so that’s something else again. (ENT-RTV)

The following is a representation of the socio-theological tension between fields as a function of the distinction between doctrinal discourse and topical discourse:

Table 2. A comparison between doctrinal discourse and topical discourse.

	DOCTRINAL DISCOURSE	TOPICAL DISCOURSE
Temporal Horizon	The eternity of the Divine	The immediacy of the present
Temporal Indices	The departure point of the message, the resurrection. The past, like the future (both are marked by the resurrection of the flesh), are limited. Only the present is full of uncertainty	Endlessly reconstructing itself as a function of present events and their developments. The past (reinterpreted), the present (in permanent movement), and the future (highly uncertain) are always being reconsidered in discourse.

³⁶ As an aside, one may note the rather paradoxical presentation of the radio on its website: “Vatican Radio is the broadcasting station of the Holy See, legally recognized by the international bodies. It is a means of communication and evangelization created to serve the pope’s ministry.... Vatican Radio however is not an official body of the Holy See and therefore takes full responsibility for the content of its programs” (SITE-RAV).

³⁷ One of Radio Vatican’s ‘star’ programs.

In fine, in the event of a crisis of legitimacy in the Church (see the current period), in the short term the doctrinal discourse and doctrinal media will take precedence and amass the influence of the other organizational fields, thus diminishing the potential of dyschronies.

Beyond this divide, which was to be expected,³⁸ are two grand evangelization movements facing doctrinal debates today. One is focused on lived experience and interaction instead of message, and the other on lived experience with a slightly more missionary approach:

Is evangelization an occasion for communication, or is evangelization situated in its own network of free and open exchanges? That is to say, are we entering into communication with an idea already in place, knowing exactly what we will use to pass on the message, or rather do we enter into communication first to listen to others and then eventually to respond to demands and eventually to learn if a demand for a particular message is being explicitly made... That is discussion. Some say that we should limit ourselves to evangelization. And then there are others that say it is necessary to first just be there and listen, and then one easily gains credibility. The Church is also an object... a theme of information. And as a theme of information it must accept the part of the whole it has acquired. It must therefore accept communication as it is, even if one hopes to convert as many as possible and that through testament one can reach the foundation of consciousness. (ENT-CPSC)

Socio-technical tension

As our case study shows, the various forms of media in the Vatican are seeing a phase of convergence linked to the appropriation of technological factors. **The massive development of Internet technologies, both inside and outside of the Church, is blurring traditional definitions and frontiers.**

The use of techniques such as Podcasts on the radio, increased recourse to news posted in a hypertext format (regardless of the media), audiovisual adjuncts on websites, and the development of directories: all these render the specifics of the contents (sound, image, text) linked to each field null and void.

This is particularly apparent in the case of Radio Vatican, which from now on would invest itself in text and image as well as sound.

Until now, **those actors who looked for external resources in order to make use of the Internet evaded these incitements to convergence.** Only those media most invested in the official party line (office of the press, congregations, written press) played the game of technologies governed by the office of the Internet. Otherwise, the radio, like the pontifical council (and other non-media-related actors, like the library and museum), remained outside of this common technological platform. However, the incitement to convergence and collaboration embodied by the Internet is well identified by one or the other. In the framework of the future portal of the Vatican as well, the technical director of the office of the Internet hoped to develop further collaborations with other media in order to obtain more sounds and images.

In all of these cases, intra-organizational fields are linked to fields in the institutional sense of the term. The various forms of media of the Vatican had evolved in the context of existing sectors and practices, which were disorganized and obsolete from the beginning. They led at times to phenomena of isomorphism (see DiMaggio and Powell, 1991) common to such choices of technology. The use of the Internet (and more recently of Podcasting) by Radio Vatican is largely

³⁸ And which, in Bourdieu's further writing, valorizes two types of symbolic capital: one divine, the other profane.

concomitant with a wave of collective choices by competitors.³⁹ Its choice allows for the advertisement of a certain cultural capital, which in turn gives it legitimacy in the institutional field.

Socio-economic tension

Since the 1980s, the Roman Curia has experienced several economic crises. With a noticeable decline in active Church membership within the developed world (Aubert et al, 1975; Cohen et al, 2004), its resources are drying up. The Vatican's annual budget has had a deficit for 19 out of the past 25 years (Duquesne, 2004). Furthermore, if 2004 was a rare (and slight) return to solvency, with a profit of three million Euros, 2005 will most likely produce a new deficit caused in large part by the many consecutive ceremonies organized to mourn the death of John Paul II, especially his funeral and the subsequent conclave (Duquesne, 2004). More generally, expenses are in large part due to the salaries of the 2600 pontifical employees, 750 of which are ecclesiastical.⁴⁰

Furthermore, Radio Vatican and the Osservatore Romano are chronically insolvent.

In addition to these recurring problems of coordination, the economic situation is increasingly demanding that the new Pope address a project of consolidation of the various medias of the Vatican. This would be an occasion to group various means under the same umbrella. It would seem that the pontifical council would be a prime catalyst of a future mega-structure of communication. However, such a project would hardly create unanimity.

Many attempts at consolidation have gone in this direction, such as the creation of a short-lived Internet commission in 1997 (presided over by Navarro-Valls and which reconciled the office of the press and the brand new office of the Internet) or the reconciliation of CTV with Radio Vatican in 2005 (both of which were from then on managed by the director of the Radio).

Today, more than ever, economic research and business rationale seem to be significant priorities of the Curia ("It will thus be necessary to reduce personnel and means. And the current pope is going in precisely this direction. We are reducing big events, we are reducing very costly things. We are taking 'torro minore', which is to say that we are turning more towards a day-to-day business that excludes pomp and circumstance. It will be necessary to reduce voyages and parades" ENT-CPSC).

In a general way, socio-economic tensions seem as though they can be linked to a third axis of institutional tension. The more organizational resources (and more specifically, economic capital) on which media-related fields draw diminish, and the more competition between these fields intensifies, the greater the incentives for convergence in the management of these systems become.

Socio-organizational tension

The final type of tension is linked to the dynamic of the system of actors that operates the fields of communication, and notably to the actions of institutional entrepreneurs.

Li, Feng and Jiang define an institutional entrepreneur as being:

An innovative person who starts or expands his business venture and in the process helps destroy the prevailing non-market institutions in order for his business venture to be successful. By this definition, an institutional entrepreneur is a businessman, whose ultimate objective is the success of his business venture. However, in order to make his business venture a success, he has to

³⁹ In evidence of this, one can compare Radio Vatican's choices of media (Podcasting, RSS, animation technologies, etc) to major players in broadcast radio, such as BBC, RTL, or RMC.

⁴⁰ 2002 figures (Duquesne, 2004).

effectively break existing institutions, which are obstacles to his business operation. Thus, his innovation is external, not just within his firm. His efforts and creativity help establish market-oriented institutions. (2006).

Similarly, DiMaggio suggests that “new institutions arise when organized actors with sufficient resources (institutional entrepreneurs) see in them an opportunity to realize interest that they value highly” (1988).

Relevant to our case study is the presence of at least three institutional entrepreneurs, all held in high esteem in the media environment of the Curia: the directors of the office of the press, the Internet and the radio. These three individuals were able to direct the energy around a particular project within their field and amass a significant quantity of social capital.⁴¹

Beyond the activities of these institutional entrepreneurs exists various strategies for the autonomization of different fields, all the while retaining skills and competencies necessary to their expansion (and particularly competencies linked to the Internet). Given that the Church (particularly in Europe) is far from exercising the influence it did up through the 19th century, this quest for autonomy seems to have become even more important.

Paradoxically, within each intra-organizational field positions are relatively unstable and autonomous subgroups, which co-exist relatively durably. This is particularly true for the media of current events (like the radio), whose mode of functioning is clearly modular and decentralized. Each linguistic team works on news that seems relevant to their audience, without any real oversight on the part of the management (control would in any case be difficult to exercise, given the plurality of different languages spoken on the different channels). Instead the director determines, “the thrust of the information to be distributed, and each week specifies what information takes priority. But after that each newsroom works relatively independently. There exist interesting news choices for the audiences. Each works in the language that he understands... and the others do not understand. That is the responsibility of each person” (ENT-RTV).

For this fourth and last axis of tension, we would like to put forward two proposals. First, it seems as though the more that the interests of the different fields of media diverge, the more their parallel evolutions will assert themselves. Then, the more the interests between the general environment and the media fields are at odds with the best interests of the Church, the more the tendency will be to convergence. Obviously, these two propositions are largely indivisible.

IV. CONCLUSION: A DISCUSSION OF THE CONTRIBUTIONS, LIMITATIONS AND PERSPECTIVES OF THIS STUDY

In conclusion, we would like to discuss the various contributions, limitations, and perspectives of our research.

The main contribution is put forward in the illustration below and in an explanation of the notion of dyschronies as advanced by Alter (2000, 2003). We have illustrated this by using a double internal displacement (as demonstrated by the evolution of intra-organizational field A with regard to intra-organizational field B) or external displacement (the evolution of intra-organizational field A with regard to the larger institutional field that corresponds to A)⁴² that we contextualized by means of institutional tensions.

⁴¹ To this list we can also add many other institutional entrepreneurs in the history of the Church, such as Robert d'Arbrissel (see Dalarun, 1994), Saint Bernard (see Berlioz, 1994), or even Abelard (see Verger, 1994). All of these individuals helped bring about a number of intra-organizational or institutional fields (which were at that time largely confounded).

⁴² An example: Radio Vatican with regards to a larger field of radio.

This dyschrony is not only a matter of rhythm and temporal orientation specific to each field. Instead, in situations of parallel evolution (and weak institutional tensions) the differences in the evolution of fields will not be fettered by dyschronies. In effect, each will evolve in its own vacuum. On the other hand, in situations involving competitive or convergent evolutions (and stronger institutional tensions), temporal conflicts will be much more numerous.

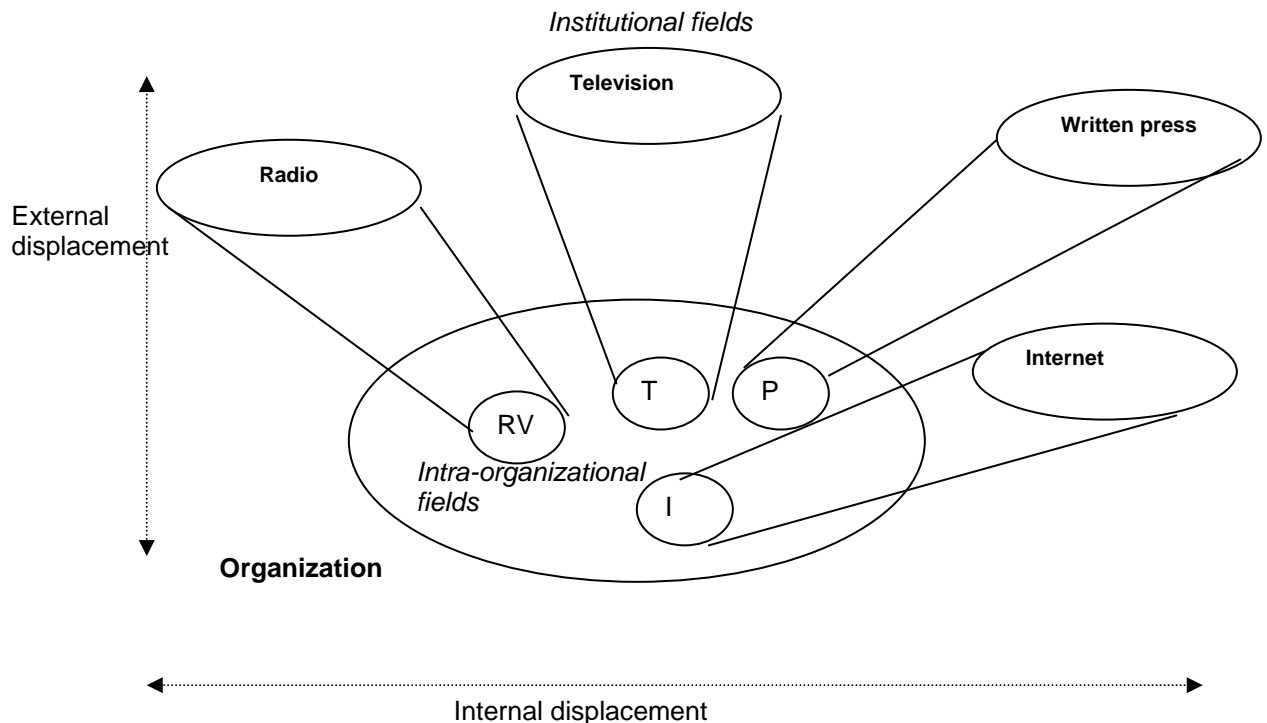


Figure 2 : An analysis of fields on two levels

In the case of the Curia, the dyschronies are characterized most notably by the opposition between the Church's fundamental vision and the reality of the modern day. Some actors and some fields (such as the Pressroom or the Osservatore Romano) are mouthpieces of the theological message of the Church. They defend and drive a message and direction. Others are vectors of adaptation to a certain environment (such as the Radio) that reflect aspects of the Curia and the rest of the Church. There is as a result a strong potential for temporal conflicts. Understandably, this tension, if it is exacerbated in the case of the Roman Curia, is no lesser a typical dyschrony than in a number of organizations. Between the actors (or intra-organizational fields) that act as mouthpieces of a vision or a project (more long-term) and those that initiate adaptive processes to present circumstances (more short-term) the tension is recurrent and often unavoidable. In the case of the Curia, as in the case of most other organizations, the survival of the group depends largely on the mechanisms of balance between these two centrifugal forces.

Furthermore, our empirical work has allowed us to explore beyond the mere mechanisms of how organizational fields are formed (building on the work of Bouchikhi, 1991, and Walsham, 1993) or the factors explaining the dynamic of these fields (see Maguire, Hardy, Lawrence, 2004). In the framework of this analysis, we have suggested that the conjoined dynamic of intra-organizational fields⁴³ could be explained by an ensemble of institutional tensions (socio-theological, socio-technical, socio-organizational, and socio-economical) linked to the conflicts between the projects and the interests of local actors, or even between the projects of local actors and the more

⁴³ And the temporal conflicts that could be linked to their intersections.

general rules of the institutional fields in which they operate. The nature of the co-evolution of these fields would thus be partially endogenous (linked to the dynamic of structuration of the social structures of an organization) and partially exogenous (constrained by larger evolutions, that the Curia could oversee without necessarily regulating or determining).

Hence, and outside of the problem of dyschronies, we think that our case study (the Roman Curia) demonstrates a profound dynamic and capacity for innovation in “missionary organizations” (to adopt the terminology of Mintzberg, 1979, 1989). As a member of the pontifical council for social communication said, tongue in cheek: “Many things here are done with great pragmatism. That which is provisory and *ad experimentum* is most durable at the Vatican!” There are many experiments and innovations central to the operations of the Curia (see de Vaujany, 2006). If today they tend more to support processes of adaptation, there may be a time when they will actually reinforce the rules of the institutional fields.⁴⁴

Besides the contributions that we have just described, there are some limitations to our work that must be addressed.

First, the point of view of users was provided to us in an indirect fashion by the managers that we interviewed and the documents that we were able to analyze. We were unable to interview lay people, secretaries, webmasters, technicians, or others involved in the workings and appropriation of the infrastructure.

Second, we decided to make sense of dyschronies that were at the heart of a very large meta-field of communication. If this idea appears in part reasonable (the field of media operates in a relatively homogenous space and shares common resources and a common audience), it also may have caused us to neglect other forms of temporal conflicts. The co-evolutions with the Secretary of State and the “grand domain of diplomacy” could have been equally as relevant axes of analysis.

Finally, there are the issues of the time scale on which we concentrated the bulk of our analysis (i.e., 1980s to today) and our choice of “pivot” point (the Internet and computer technology). Our study could have been more detailed had we evaluated the relationship between the radio and the written press after the WWII. However, the various elements extant in our case study appear to demonstrate well the importance of the Internet in the general dynamic of the various fields of information (and notably in the evolution of the frontiers between these fields).

To finish, we see two future avenues of research associated with our work. The first consists in developing another longitudinal case study of the dynamics of inter-organizational fields. But this time, we could return to more traditional areas of management study, while still using the case of the Curia as a tool of “contrasts.” The second avenue is more theoretical. It consists of making use of work on “boundary-spanners”, notably that of Star and Griesmer (1989), Fujimara (1992) or Gieryn (1995) in order to understand the flux and collaborative and reductive mechanisms of dyschronies between intra-organizational fields. The Vatican’s work on new websites and their conception and implementation, could result in even more illuminating research. Viewed as a transversal tool, it presumes a collaboration and a bridging of frontiers that this literature could help explain. More specifically, in the case of dyschronies, such research could help understand how an organization could manage and reduce conflicts of temporality.

⁴⁴ Without a doubt, this is the case in the field of diplomacy. Outside of the Roman Curia, there are also many other religious enclaves, notably the monastic orders of the Middle Age. In each of these cases, we performed our explication from a perspective that centered on practices that demonstrated a remarkable capacity for innovation by linking communities of religious practices with communities of managerial practices (sometimes confused as one and the same community).

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1. these links existed as of the date of publication but are not guaranteed to be working thereafter.
2. the contents of Web pages may change over time. Where version information is provided in the References, different versions may not contain the information or the conclusions referenced.
3. the author(s) of the Web pages, not AIS, is (are) responsible for the accuracy of their content.
4. the author(s) of this article, not AIS, is (are) responsible for the accuracy of the URL and version information.

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APPENDICES

A.1 SOURCES OF INFORMATION

A.1.1 Semi-structured interviews

Role	Period	Code
An executive member of the Pontifical Council for Social Communications (PCSC)	December 2005, 3 h Recorded	ENT-CPCS
Head of CTV (Vatican TV) and Vatican Radio	December 2005, 2h30 Recorded	ENT-RTV
Technical Director of the Internet Office	December 2005, 45 mn Recorded	ENT-INT
Head of the communication department (SEDICOM) and spokesman of the archbishop in Lyon	December 2005, 1 h Recorded	ENT-EVL
Interviews with historians, all experts in the history of the Roman Curia	September-November 2005 Recorded and informal (See de Vaujany, 2006)	ENT-HIST

A.1.2 Internal documentary sources about the Vatican and the Catholic Church

Title of the source	Content	Code
Permesso di accesso alla citta del vaticano n°20508	Form of entry into the Vatican (15 décembre 2005, in Italian)	FORM-VA
	Directory of the Vatican	ANNU-VA
Radio Vaticana	Leaflet of Vatican Radio	PLAQ-RAD
Website of Italian Episcopal conference	Set up in 1995, re-structured in 1996 and 1999. It offers some landmarks for other Episcopal websites in Italy. More and more, it looks like a portal http://www.chiesacattolica.it NB: During the 2000 Jubilee, 50 dioceses have developed their own website (Italy has 166 dioceses).	SITE-EG-IT
Website of the Vatican	Official website of the Vatican, http://www.vatican.va	SITE-VA
Site de Radio Vatican	Vatican radio website http://www.radiovaticana.org	SITE-RAV
Website of the PCSC	Official website of the Pontifical Council for Social Communications	SITE-CPSC
Site of Catholicweb	"Catholicweb provides everything that any Catholic church, school or organization needs in order to have a professional Internet presence." http://www.catholicweb.com	SITE-CATW
Website of Hong-Kong diocese	Website of Hong Kong diocese designed by a small group of women. It targets the Chinese era, and experiences a promising success (15 000 hits a day in 2005).	SITE-DIOC-HK
Website of the French Church	http://www.cef.fr	
Site of the MISNA	Site of the missionary international service news agency. Network set up in 1997. "The abundant and authentic information coming from its informal network of sources across the five continents is collated, verified and packaged in Rome by a group of highly specialized, lay professional journalists led by the editor in chief ... " and Father Cesare Baldi, missionary with the Pontifical Institute for Foreign missions (PIME). 15 millions hits per month	SITE-MISNA
ForumTalent	Forum of Catholic webmasters Launched in 2001. Aimed at promoting some Catholic websites.	FOR-TAL
Radio Vaticana, programmes November 2005-March 2006, International version	Presentation of Radio Vatican programs (international version in English)	DOC-RV-INT
Radio Vaticana, programmes November 2005-March 2006, Italian Version	Presentations of Radio Vatican programs (version in Italian) NB: Some important differences with the content of the Italian version	DOC-RV-ITA
Catholic News Service	http://www.catholicnews.com Notably some very interesting articles by Wooden on the Internet	CNS

The Church and the Internet	Written by John P. Foley and Pierfranco Pastore (CPSC). Exists in different languages on Vatican's website	EG-INT-CPCS
Ethic and Internet	Document worked out by the PCSC (exist in several languages)	ET-INT-CPCS
Internet, nouveau carrefour pour l'annonce de l'Evangile	Message by John Paul II for the world day of social communication in 2002. Pronounced on January 24th during a discourse in front of journalists	INT-NVEAU-CARR
Règlement pour les enregistrements et les prises de vue audio visuelles des cérémonies et des lieux qui dépendent directement du Saint-siège	Document of February 2002 about rules concerning video and audio recording within the Vatican	REG-ENREG
Profile of the PCSC	Written by the PCSC Include an interesting history of the organization	HIST-CPCS
Status of the PCSC, 1954	Status of 1954 for "The pontifical commission for motion pictures, radio and television"	STAT-PCSC
Report of the head of the SECAM	Report written by the archbishop Pasinya during the symposium of Episcopal conference in Africa and Madagascar in 2003 [http://www.sceam-dakar.sn/rapportpresident.htm, accessed the 30/12/2005]	RAPP-SCEAM-2003
Documents about the council Vatican II	Documents about the Council Vatican II, including decrees and constitutions (Accessed in December 2005 http://www.vatican.va/archive/hist_councils/ii_vatican_council/index_fr.htm)	DOC-VATII
Instruction on some aspects of the use of the instruments of social communication in promoting the doctrine of the faith	Document of the congregation for the doctrine of faith written in March 1992 Ratzinger and archbishop Bovone	CONG-DOSEE-CS
Un processo di comunicazione a livello mondiale	Document of Francesco Silvano, delegates to telecommunication and computer, about the creation of an intranet-extranet for the Jubilee (by Telecom Italia)	JUBI-TI
Holy Father congratulates managers and staff of radio Vatican on the station's 70's anniversary	Document of February 2001 presenting a discourse of John Paul II	ANI-RADV-JPII
Les moyens de communication au service de l'entente entre les peuples	Message of the Holy Father for the 39 th world day for social communications, John Paul II, February 24th	MOY-COM-JPII
Les médias : réseaux de communication, de communion et de coopération	Message of Benedict XVI for the 40 th world day for social communications	MOY-COM-B16
The real authentic face of the jubilee-crescenzio Sepe	Magazine for the Jubilee of 2000 http://www.vatican.va/jubilee_2000/magazine/documents/ju_mag_01061998_p-21_en.html	MAG-JUB
Apostolic constitution "Pastor Bonus"	Constitution of 1988 which transforms the PCSC into a council	ST-BON-CPCS

Eglise à Lyon, décembre 2005	Magazine of the Bishopric of Lyon	MAG-EVL
Practical guide 2006 of the Catholic Church in Lyon	Presentation of the main structures of the bishopric of Lyon	GUID-EVL
Diocese of Lyon, directory 2005	Structures and clergymen of Lyon's Bishopric	ANNU-EVL
Website of the French Church	Site et portal of the Catholic Church in France http://www.cef.fr	SITE-EG-F
Profile of the Osservatore Romano	"Les origines de l'Osservatore Romano" http://www.vatican.va/news_services/or/history/hi_fra.html	PROF-OSS
Profile of Telecommunications within the Vatican	Only in English http://www.vatican.va/vatican_city_state/services/telephones/index.htm	
Profile of CTV	Historical note on CTV http://www.vatican.va/news_services/television/documents/ns_ctv_doc_23102001_info-gen_fr.htm	PROF-CTV
Profile of VIS	Presentation of Vatican Information Service http://212.77.1.245/news_services/press/vis/documents/ns_vis_doc_20020711_test_fr.html#start	PROF-VIS
Profile of the printing service	Historical note on the printing service (in Italian) http://www.vatican.va/roman_curia/institutions_connected/tipvat/documents/rc_ic_tipvat_doc_20011911_prof_en.htm	PROF-IMP
Archive of the press bulletins	Archives of the pressroom since 1997 http://212.77.1.245/news_services/bulletin/bollettino.php?lang=fr	VIS

A.1.3 External documentary sources (mainly articles)

Title and year	Author	Source and code
The Holy See - success story	Document by Sun about the network they designed for the Vatican [http://www.sun.com]	SUN-INT
Second Vatican website will debut in the fall (2005)	Roberta Tuttle	Meridien, [MERI]
The computer network of the church in Latin America (2000)	Leticia Soberon Mainero (CPCS)	Mediaforum 3-4/2000 [MED-FORUM]
Naissance d'un réseau international pour l'Eglise d'Afrique	Article by Zenith (in French)	Zenit.org [ZEN]
Father, Son and Holy Ghost (2005)	Staff Writers	TechNet [TECH-WEB]
Articles divers sur Navarro-Valls	http://www.navarro-valls.info/articles.html	ART-VALLS
Der Vatican im	Anja Kapinos (in German)	Stern du

Netz. Wo Erzengel die e-mails prüfen (2004)		14/12/2004 [STERN]
Pope goes on line (2004)	Fair Fax Digital, DPA http://smh.com.au/articles/2004/12/20/1103391704016.html?oneclick=true	FAIR FAX

A.1.4 Other sources

Type	Content	Code
Observations about the Curia	Observations during visits for interviews at the Vatican	OD-VAT
Observations about Lyon Bishopric	Observations during visits for interviews at the Bishopric of Lyon	OD-EVL
Pictures about the Vatican	Pictures (39) done during visits	PHOT-VAT
Pictures about the Bishopric	Pictures (39) done during visits at the Bishopric of Lyon	PHOT-EVL

A.2 INTERVIEW GUIDES

A.2.1 For the Pontifical Council for social communications (PCSC)

- 1) Can you explain the origins of the Pontifical council for social communications? What was Pius XII aiming at in 1948 when he set up his commission for cinema?
- 2) What are the main stages this commission has gone through?
- 3) What are the main resources (human and techniques) at the PCSC disposal?
- 4) Since when did the Church began to deal explicitly with ICT?
- 5) What is the role of Internet in the mission of evangelization of the Church?
- 6) How are tasks divided between the PCSC, Radio, CTV and the Internet office?
- 7) Does the PCSC intervene in the management of results?
- 8) How have Internet technologies been received/accepted by members of the Curia?
- 9) How can the organization of communication evolve under the Pontificate of Benedict XVI? What are the forthcoming projects?

A.2.2 For the Bishopric of Lyon

- 1) When did the Bishopric of Lyon began to realize the importance of communication, and when was set up the department of communication?
- 2) What was the driving force behind this change?
- 3) What are the resources of the Bishopric to communicate internally and externally?
- 4) When began the first uses of computer tools within the Bishopric? How did it happen?
- 5) When was set up the first website of the French Church? Of the Bishopric of Lyon ? Who designed them?
- 6) How is the website of the Bishopric managed today?
- 7) How is the network integrated within that of the Catholic Church?
- 8) Are you in touch with other colleagues in France involved in the same activities as yours? Is there a French organization that puts Catholic clergymen together dealing with communication?

- 9) What are the projects of the Bishopric with regard to IS and communication for the forthcoming years?

A.2.3 For the Internet office

- 1) When did the Website project of the Vatican begin? How did the idea originate? What was your role at the beginning? How has it been managed?
- 2) How is the Website managed today? By who? How?
- 3) How has it been received / perceived by the various people involved in the Roman Curia activities?
- 4) About the RC Intranet and e-mail system, when did the project begin?
- 5) How has it been managed and what are the main stages the project has gone through?
- 6) What has changed the intranet in people's everyday activity? Has it changed the way people communicate? Has it changed some organizational activities?
- 7) Can you tell me a few words about the next Vatican website? I've heard of e-learning facilities. What will they consist of?
- 8) What is Pope Benedict's opinion and view of Internet technologies?
- 9) Has there been any study on the website or intranet's usage?

A.2.4 For historians

- 1) What are the main historical phases the Roman Curia has gone through?
- 2) How did the method implemented by the Church to disseminate internally and externally its information evolve?
- 3) What is the organization of the Church today? What are the main orientations wished by Benedict 16th?
- 4) What is the place of technique in the official discourse of the Church?
- 5) More specifically, what is the place of computer tools in this discourse? How did it evolve?
- 6) How did the most recent official texts treat the case of computer tools, notably Internet technologies?
- 7) Is the notion of management of the Church meaningful from your point of view? Why?

A 2.5 For Radio and CTV

- 1) Can you precisely tell me the context of the birth of Vatican Radio?
- 2) What are the main phases Radio Vatican has gone through?
- 3) How is managed today Radio Vatican?
- 4) How are Internet technologies integrated in its activities?
- 5) What are the relationships between Radio Vatican and the other medias of the Holy See?
- 6) How was CTV born ? What are the main reasons for its merger with Radio Vatican?
- 7) How can the communication of the Vatican evolve in the coming years?

A.3 SCREEN PRINTINGS

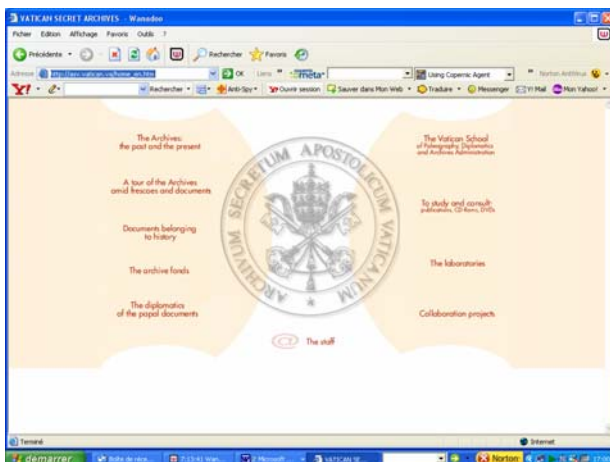
Of the Vatican's website (<http://www.vatican.va>, done the 28/02/2006)



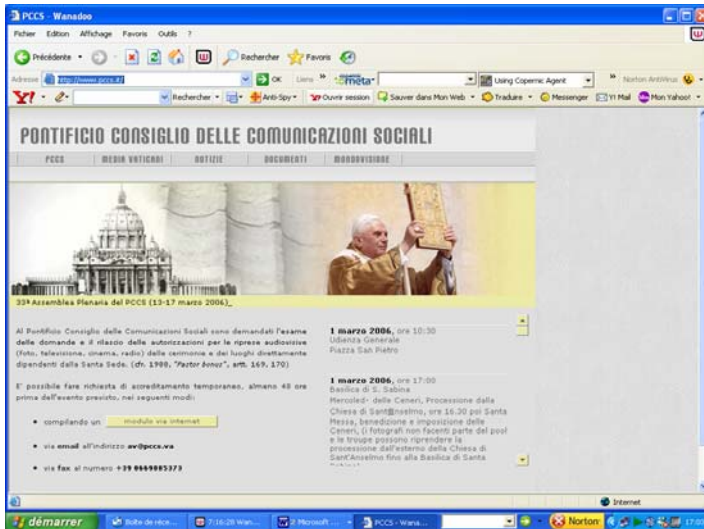
Of Vatican's Radio website (<http://www.vaticanradio.org>, accessed the 26/02/2006)



Of the website of Vatican's secret archive (http://asv.vatican.va/home_en.htm, accessed the 26/02/2006)



Of the PCSC website (<http://www.PCSC.it/>, accessed the 26/02/2006)



Of Vatican's library website

(http://bav.vatican.va/en/v_home_bav/home_bav.shtml, accessed the 26/02/2006)



A.4 EXTRACTS OF SOME SEMI-STRUCTURED INTERVIEWS AT THE ROMAN CURIA

A 4.1 About the context of computerization within the Curia

"The problem of computerization has first been raised with regard to the management of the Holy See. We had typewriters and secretaries and clergymen that only wanted to hand write in some dicasteres. Whereas it was obvious that we had to adopt computers, a part of the Curia's staff was rather reluctant to this change. It was thus necessary first to convince people. The Holy See could not avoid computerization. We had to do it. Of course, there was an implicit aspect in it. With a computer, a single person could be in charge of the activities previously endorsed by 5 persons. This idea was a key point in the conversion of many members. So, with technology it was possible to spare resources! Work can be done in a better, in a more effective way! So the idea finally becomes more seducing. Within the Curia it took time... and it still takes time. (...) Thus, I would say that the real conversion to computer took place in the 90's. And of course, there was also the problem of costs... What should be the perimeter of the computerization? Should we cover all the departments, or should we adopt a step-by-step strategy? We choose a gradual approach, and begun by the most interested dicasteres. This was thus done in the usual way here, step by step..." [ENT-CPSC]

A 4.2 About the emergence of "Inter mirifica" about medias during the Council Vatican II (ENT-CPSC)

"Thus we first put forward the idea that it was necessary to introduce in the Gaudium et spes⁴⁵ a part, a chapter. Then, it became obvious that it was something important, and that it was necessary to treat it per se. This was something that emerged, it was not planned, and John 23rd would not have accepted it. He always wanted to listen and to discuss, and on the basis of what had been said, to know what the council should take into account. We did it for the Lumen Gentium⁴⁶, i.e. the dogmatic constitution of the church. In this document, John 23rd reversed the perspective by talking not about the Church-society, not about a closed Church, but about the Church as a mystery, an announcement going far beyond the Church itself. So, by raising the question this way, the question of other Christians was also raised. It was so decided to work out a new chapter about ecumenism in the Lumen Gentium, but we quickly realized that it would be too much. In the case of the medias, this was also done in an emerging manner. We did the decree Inter mirifica, which was focused on instruments. Less on the understanding. But what was this world where communication was the basis of exchanges. What is becoming this world? do we understand it? Gaudium et spes about the contemporary world evoked it. (...) With the ecumenicist council of churches, something appeared very quickly. Churches are less interested in communication as the management of human freedom, but more on the management of instruments. And with regard to instruments, there's always been the idea that it was better to possess them in order to manage them freely, and put in them the content we want. Then come another key question. Was the discussion with the world really what communication was getting at? Or shall we be part a plat-form of human exchanges, into which we enter as simple guests among many others, and we are involved in a place where everybody express his/her own opinion. Here there is a dialogue, which imply a certain confidence. Otherwise, it is not possible." ENT-CPSC

A 4.3 About the initial role of the PCSC

"The first priority the council gave us was to study, understand and make understand the phenomena of communication. This was the first thing that has been asked. So, it was necessary to gather people with a competence on this topic, who were able to explain this phenomena of social communication in which we were involved. We had to cover this. Because Paul 6th was

⁴⁵ The Gaudium et spes is one of the decrees of the council Vatican II.

⁴⁶ See the set of documents related to the council Vatican II (DOC-VATII).

convinced of that: we do not know communication. We know only very few things about it. We are at the beginning of its understanding. So the Church should first understand before making any decision and pointing out directions, saying what was right or wrong. So our first duty was to study, understand and make understand. Then, we had to promote what had been understood."
ENT-CPCS

ABOUT THE AUTHOR

François-Xavier de Vaujany is Associate Professor of MIS and Strategic Management at ISEAG (Economics and Management Department of Jean Monnet University, France). He is also researcher within Préactis (Jean Monnet Research Center in Management). His work focuses on ICT related practices, and their corresponding strategic values. By means of the case study method, he has analyzed the use of e-learning, groupware, intranet or e-mail systems in various organizations (research centers, industrial firms, service companies, religious organizations). Observed dynamics have been interpreted through structuration theory and critical realism, frameworks that both underline the emergent, contextual and negotiated nature of ICT impacts. More recently, he has also been interested in long-term sociotechnical dynamics and historiography in IS.

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