

INTRODUCING AND IMPLEMENTING A NEW MEDIA KNOWLEDGE
MANAGEMENT PLAN FOR PUBLIC RADIO PROGRAM DIRECTORS

by

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ABSTRACT

This purpose of this thesis is to introduce and make recommendations for implementing a new media knowledge management plan for Public Radio Program Directors (PRPD) a national organization that includes program directors at public radio stations across the country. I discuss knowledge management and relate it to my own experiences as a program director responsible for guiding the media organization I work for in a rapidly changing new media environment. I review the current new media landscape and examine the challenges program directors like I are facing if we are to better manage our organizations and make the best decisions for the future. I present definitions of knowledge management (KM), review the literature and identify several KM models and philosophies. I conclude with recommendations for a new media knowledge management plan for PRPD to implement within their organization.

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LIST OF TABLES

TABLE		Page
1	Very Important Issues Facing Public Radio Programmers	4
2	Practices and Processes in Knowledge Management	25
3	Drivers of Knowledge Management	26
4	Template for Web Based Knowledge Management Module	30
5	Objectives for PRPD Knowledge Management Plan	31
6	PRPD Plan Recommendations	34
7	Knowledge Sharing Cycle	36
8	Sources of Knowledge	41
9	Guiding Principles of a Knowledge Management Plan for PRPD	45

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	v
CHAPTER	
1 Introduction	
About WXPB	1
Program Director Responsibilities	2
Purpose of this thesis	7
2 About Public Radio Program Directors	
History of PRPD	9
Mission of PRPD	10
Strategic Planning in PRPD	11
Reframing the Future	13
Why Does Mindset Matter?	16
3 Knowledge Management	
Knowledge Management Meanings	19
Importance of Knowledge Management	23
Drivers of Knowledge Management	26
4 Knowledge Management for PRPD	
Objectives for PRPD new media knowledge management plan	30
Knowledge Creation, Dissemination and Application	31
5 Recommendations	
Driving Forces	36
Environmental Scans	37
6 Conclusion	40

	Page
REFERENCES	46
APPENDIX	
A History Of WXPB 1960-1995	49
B WXPB Mission Statement	56
C Issues Facing Public Radio Programmers	58
D Public Radio 2010: Challenge and Opportunity in a Time of Radical Change	59
E Unlearning/Learning Organizations – The Role of Mindset	61
F Definitions of Ackoff’s Five Categories	81
G Public Media Strategy Map	84

CHAPTER 1

INTRODUCTION

About WXPN

In May 1923, the University of Pennsylvania began to broadcast educational programming from a studio in Houston Hall on the university's campus. The university utilized the radio primarily for the dissemination of learning and included faculty presentations on literature, psychology, astronomy, history, government, business, archaeology, and other diverse topics; student debates; musical performances by Penn groups; as well as occasional university sports events (Carlson, 2000).

It was not until 1945, however, that a group of University engineering students established Penn's own AM radio station, which they called WXPN (for Experimental Pennsylvania Network). The non-commercial broadcasting license for WXPN is held by the Trustees of University of Pennsylvania. In 1956, WXPN applied for and received an educational-broadcast license for frequency modulating (FM) radio from the Federal Communications Commission (FCC). The FCC assigned the FM frequency of 88.9 MHz to the station, which also retained its on-campus AM broadcasts. WXPN-FM officially went on the air on 23 April 1957, with an output power of 10 watts.

As of October 2008, WXPN employs 52 full-time staff. The station's 2008 operating budget was \$7.7 million dollars. 40% of WXPN's operating revenue comes from business Support including on-air and new media programming sponsors and 51% of its revenue comes directly from listener support.

WXPN's current mission has evolved since its original intention to provide an educational outlet for University of Pennsylvania's teachers and students. Where the station's history (see Appendix A) was focused on included the "dissemination of learning and included faculty presentations on literature, psychology, astronomy, history, government, business, archaeology, and other diverse topics; student debates; musical performances by Penn groups," that station's current primary mission is "is to reflect the broadest educational goals of the University by serving listeners interested in contemporary music, art, culture, and society, and the traditions, which inform them" (see Appendix B).

WXPN's value and service to its listeners is manifested in the station's facility to expose the audience to new and heritage contemporary music and musicians and the arts and musical events and trends impacting popular culture.

Program Director Responsibilities

In 1993 I became the Program Director (PD) at WXPN-FM. Organizationally I work with a management team that includes the station manager, sales manager, marketing manager, membership manager and IT and web managers toward meeting common goals of increasing audience size and awareness about the radio station, and improved revenue. As PD, my functional responsibilities concern the entire on-air and on-line experiences provided by the station. At WXPN I am responsible for setting the creative vision for all the programming. I oversee all the local and national program creation and technical production at the radio station and have primary responsibility for deciding what music and programs will be broadcast.

Similar to most other media program directors, I am responsible for managing the talent which includes disc jockeys, newscasters, sportscasters and other on-air personalities and the programming department's administrative personnel. All are "talent" at a radio station and it's up to the program director to direct and align this often diverse group of individuals toward meeting the primary external audience service goal – to produce broadcasts that will attract and sustain the public to our station, WXPB.

Since 1993, the scope of my responsibilities – and those of PD's across the broadcasting system has changed significantly. While I continue to be responsible for the planning, creation and implementation of the content, much has changed in the technological and new media landscape. Not only have these environmental factors and changes impacted me and colleagues within my organization but the sentiment of uncertainty created by the fast, ever-evolving changes in the broadcast industry have implications for change industry wide and are echoed by my colleagues across the public radio system.

In January, 2008 Public Radio Program Directors (PRPD), a national organization of public radio programmers established in 1987, conducted a survey of job related issues and challenges facing public radio program directors. PRPD asked its members to rank 21 issues in importance (see Appendix C). The survey highlights topics of importance relevant to the changing media environment and its impact on work and the scope of program directors' responsibilities (see Table 1). Four of the top six important and very important issues facing public radio programmers highlight the expressed needs of program directors to increase their knowledge about new media, how to deal with a

broadening of their day-to-day responsibilities and staying informed about the changes in the new media landscape.

Table 1. “Very Important” Issues Facing Public Radio Programmers

- Dealing with position where demands are rapidly growing.
- Balancing potential of online with day-to-day programming of terrestrial radio broadcast.
- Designing and programming multi-platform services.
- Staying informed about the new media and technical environment.

With the increasing use of the internet for information and social networking, and the advent of digital technologies such as high definition, internet radio multi-casting, podcasting and audio downloading, WXPN’s opportunities to create content and distribute it through non-traditional internet based platforms has begun to expand our relationships with our customers over multi-platforms. Up until 2000 when WXPN began making its broadcast signal available on the web in the form of streaming audio much of my attention and work was focused on the traditional broadcasting platform of the FM dial.

The media landscape has changed significantly as a result of the introduction of new technologies that allow content to be distributed in non- traditional ways. Indeed, various digital audio and video distribution platforms and social media platforms have

emerged only recently: Wikipedia on January 15, 2001, MySpace on August 15, 2003, Facebook on February 4, 2004 and Youtube on February 15, 2005. The global uses of these social media platforms and tools by the general public have proliferated and continue to grow at significant rates. For example, recent analysis shows that Facebook's visitor growth rate has shot up to 153% per year over the last making Facebook the largest social network amongst the major social networks. In June 2008, Facebook had 132 million unique visitors, which makes it the fastest growing social network ([http://www.techtree.com/India/News/Facebook Largest Fastest Growing Social Netwo rk/551-92134-643.html](http://www.techtree.com/India/News/Facebook_Largest_Fastest_Growing_Social_Netwo rk/551-92134-643.html)).

To the end that new media and digital platforms are enabling content producers to interact with audiences, and audiences with each other, these platforms have extended even further the value of the educational and cultural goals of public radio's service to its listeners by serving our listeners and potential audiences content in non-traditional distribution platforms.

Various media researchers have documented the rising growth in the use of these platforms continue and the significant impact it has on media usage. The New York based media research company Arbitron (www.arbitron.com) has been researching and evaluating the growth of the internet and multi-platform technologies and its implications for media planners since 1998. Arbitron is a media and marketing research firm serving the media; e.g. terrestrial radio, television, cable, online radio and out-of-home, as well as advertisers and advertising agencies in the United States. Arbitron's core businesses are measuring network and local-market radio audiences across the United States; surveying

the retail, media and product patterns of local-market consumers; and providing application software used for analyzing media audience and marketing information data.

Together with Edison Media Research, based on Princeton, they have produced various projects exploring the use and impact of digital platforms. The recent report, *The Infinite Dial 2008: Radio's Digital Platforms* explores the digital audio platforms (i.e. online radio, satellite radio, high definition (HD) radio, and podcasting among others) that expand the radio market, their impact on AM/FM radio, and implications for advertisers and media planners.

The findings in *The Infinite Dial 2008* report point out how consumer usage of multi-platforms is increasing and has consequences for decision makers in media, particularly Program Directors at radio stations. They note that uses of digital platforms continue to extend radio beyond the AM/FM dial. While terrestrial radio use has eroded 13% since 1998 internet radio listening has continued to increase annually by 10% and the weekly online listening audience had approximately 33 million online radio listeners (*Radio Today*, Arbitron 1998). Ownership of portable listening devices like the iPod and MP3 player ownership continues to rise and there is an increasing use of cell phones to receive audio content including wireless internet radio. (Arbitron - *The Infinite Dial*, 2008).

The media landscape shows continued growth and use of the internet and various digital devices to receive audio and video content, although traditional AM/FM radio, television, and newspapers still play a role in providing news and information, music and entertainment. However, in a 2007 media perception study, Arbitron and Edison Media

Research found that the internet has positioned itself as the “most essential medium” surpassing radio and newspapers, and at 33% the internet trails television at 36%. In 2002, television was seen as the most essential medium at 39% with the internet at 20%. (Edison Media, Five Years Later, 2007). This perceptual turnaround is reflected by the current state of internet usage by consumers in their increasing use of new media multi-platforms.

To quote Bob Dylan, “the times they are a-changing.” These events have not only changed my traditional role of Program Director and manager at WXPB, but the roles of program directors system wide throughout all of public radio across the country. Program Directors are in the process of reframing their decision making perspectives to make sense of this traditional media and new media convergence.

The more that information and communication technologies become central to modern society, the more imperative it is to identify, and to manage the development of the skills and abilities required to use them (Livingston, 2003). This is the essential challenge facing Program Directors in public radio. My colleagues and I are in the process of dealing with the changes and uncertainty in our profession on many levels. Being a program director in a multi-platform environment brings up new challenges, new questions and new answers every day.

Purpose of Thesis

The purpose of this thesis is to help guide program directors in their decision making in the public radio new media space. I focus specifically on Public Radio Program Directors, a member based service organization of public radio program

directors and individuals from national media networks, to adapt as part of a set of strategic objectives in the creation of knowledge in multi-platform content management.

I offer a roadmap to PRPD for building a knowledge management plan to train program directors in public radio. In Chapter 2 I present a history of the Public Radio Program Directors' organization, their mission and a review of their current strategic plan. In Chapter 3 I present a discussion of knowledge management including a review of the current literature. In Chapter 4 I discuss knowledge management for PRPD and in Chapter 5 I make recommendations to implement a new knowledge management plan. I conclude with final comments in Chapter 6.

CHAPTER 2

ABOUT PUBLIC RADIO PROGRAM DIRECTORS

History of Public Radio Program Directors

In 1985, a group of public radio program directors informally started talking about the need for an organization that would help Program Directors with their jobs. They wanted to improve the service they provided their listeners by honing their programming skills and professionalizing the role of program directors throughout the public radio system. The organization they envisioned would serve a number of functions including providing program directors with successful, hands-on advice about improving their stations and their programming; offer convening opportunities for programmers to discuss their craft; acting as a clearing house for information about what was going on in public radio, as well as the rest of the broadcasting industry and to serve as an advocate for program directors and their perspective on important public radio issues.

From these discussions emerged Public Radio Program Directors (PRPD), a member based service organization that creates, implements and disseminates knowledge unique to program directors in public radio. Incorporated in 1987 PRPD's membership includes 220 stations as well as well as national media outlets like National Public Radio (NPR), Public Radio International (PRI), American Public Media (APM), the British Broadcasting Corporations (BBC) and independent content producers from around the world.

Mission of PRPD

The mission of PRPD is to help public radio programmers provide a valuable service to listeners. PRPD exists to lead, train and provide resources to public radio program directors and other programming decision makers including station staff and program producers. PRPD accomplishes this mission by defining and advocating principles of quality public radio programming; by training program decision makers on basic and advanced programming skills; and by building stronger connections among various facets of the public radio community. (www.PRPD.org)

Many of PRPD's initiatives are in the area of knowledge management, focusing on the process and the people involved in creating, sharing and leveraging knowledge in the organization to support business strategies. PRPD's activities includes gathering, organizing, sharing, and analyzing of data, research and information for its members so that PRPD members - individuals and organizations - can apply that knowledge in their businesses.

Most of the focus of PRPD's activities revolves around its annual conference. This is the primary gathering where PRPD convenes members of the public radio system to share knowledge around best practices at radio stations. PRPD also has a blog (<http://prpd-news.blogspot.com/>) that is used to publicize information about programming, news about stations, and research and issues relevant to public radio to its members. Additionally, once a month, PRPD holds "webinars" with PRPD members on specific topics. As there are an increasing number of issues facing program directors, one of PRPD's challenges has been to increase the convening opportunities to share

knowledge that PRPD creates on their own and mines from the public radio system at large.

Strategic Planning In PRPD

Each year PRPD conducts strategic planning at its annual board of directors meeting. Collectively PRPD's national board of directors represents a broad based range of organizations including networks such as National Public Radio and Public Radio International as well as stations from a variety of formats within in public radio including news and information, talk, classical, jazz, and contemporary music.

In January, 2006 the board met to discuss key issues and challenges facing Program Directors. Recognizing that the role of the Program Director was changing in the multi-platform media environment, PRPD acknowledged that the changing media environment required Program Directors and all public radio programming decision makers to incorporate new and additional skills and knowledge in to their mindset and skill sets and to create a strategic plan focused on this idea of the "PD as a multi-platform manager."

PRPD identified four key issues facing Program Directors in the new media environment which would become the basis of our strategic plan and planning objectives. These include: Keeping up with new technologies and programming choices and the impact these have on multiplatform service delivery on our stations; How the multiplatform environment affects station staffing and organization; Managing growth and sustainability by identifying new revenue to help fund multi-platform growth and the increasing costs of web and internet based services including servers and bandwidth; and

dealing with internal organizational decision-making tension about how to best invest resources in our organizations.

In a 2005 essay entitled, “Public Radio 2010: Challenge And Opportunity in a Time of Radical Change,” Thomas J. Thomas and Theresa R. Clifford of the Station Resource Group, a public media policy and strategic planning organization, wrote about the various forces impacting the changing media landscape and the bearing these changes are bringing about on the roles of broadcasters (see Appendix D). Within the public radio system at-large, the impact of the massive technological shifts in channels and platforms in which users receive their news, information and music has resulted in new and different ways of making decisions as program directors and decision makers in radio. Serving as rallying cry to move into a new and ever evolving future, Thomas and Clifford (2005) posit the creation and implementation of a new framework and a renewed vision of meaningful public service within this new technological landscape.

Thomas and Clifford, as well as public radio decision makers see the need for a new framework, or perhaps a reframing of the current landscape to think strategically about the future.

During the last five years, I have had to continuously reframe my mindset as it applies to the role I have in strategically thinking about the radio station in terms of long term planning as well as thinking “multi-platformatically” on a day-to-day basis. The challenge that PRPD has as a service organization is to create a knowledge management plan to offer its members that helps program directors frame up ways to manage new

technologies and programming choices and the impact these have on multiplatform service delivery at our stations.

With Thomas and Clifford's (2005) remarks as an early indicator of system wide evolution, the notion of the program director as being a "multi-platform manager" came up at PRPD's 2006 board of directors meeting. Recognizing the changing role of the PD to include not just oversight and management of terrestrial broadcasting but also to include multi-platform delivery of audio and video content was a fundamental strategic notion for PRPD to articulate and the basis on which current PRPD knowledge management initiatives are based on. Broadening the definition and scope of what a program director does in his or her job is necessary in order to cope with uncertainty of the ever changing new media landscape.

Reframing The Future

Now more than ever Program Directors are thinking about the destination of content as being more than distribution channels or outlets. Indeed, other media share this reframing. In the newspaper industry stories and features are not produced only for print editions, they are now presented beyond multi-level content models. For example, The New York Times offers unique web only content including video and exclusive blogs that cover music, arts, design, dining out and politics.

The Wall Street Journal (WSJ) is another example where traditional and new media are converging and multi-platform content is being created and distributed beyond the traditional channels. When WSJ relaunched their new web site design on September

16, 2008 Alan Murray, Deputy Editor of the WSJ, said that "The new owners have made it clear that they no longer want people to look at the Wall Street Journal as a second read. It should be their primary read, it should suit all their information needs (Thompson, 2008)."

The WSJ is maintaining a distinct print journalism identity yet they are using their new media footprint to broaden the content experience for the consumer. One area of focus in the relaunch of the paper's web site was to maintain their online subscription base, which has reached over 1 million paying members. Apart from increasing new unique web only content in areas of management, media and marketing, video and blogs, the WSJ hopes to hold on to these subscribers with exclusive features such as the WSJ Community, a social network for subscribers. WSJ describes the Journal Community as "a marketplace of ideas for Wall Street Journal readers where they exchange opinions, ideas and tips on subjects ranging from the economy to the business of life." This user-generated content community – or "citizen journalism" - trend in social media is being applied in practice at various traditional media outlets in print, television and radio.

While the WSJ is adapting to changes in the new media environment by undergoing a change on its website, the organization is adapting to the impact these changes are having inside the newsroom in their organization as well. At the same time the web site relaunched the WSJ integrated and reorganized the reporting and editorial staff.

WSJ Managing Editor Robert Thomson spearheaded the organizational changes, which brought together the online and print staff. A news hub was created in the newsroom where the senior editors from print, online, Dow Jones Newswires and MarketWatch co-coordinated the coverage throughout the day.

The morning news meeting has been "totally turned upside down," according to Murray (Thompson, 2008). It now begins with a report from the online team, then from Dow Jones Newswires, then Market Watch, and, only after discussing the coverage for real-time news, do they look at coverage for the day's paper. The WSJ team has been undergoing training to prepare for the integration process. Murray reported, "A simple example is headlines. You have to write a different kind of headline in the online world and in the print world. We will continue to do that kind of training." (Thompson, 2008)

Similarly, Program Directors who are now responsible for managing the creation and distribution of content across different digital applications from podcasts to audio streams are having to cope with the increased needs of the new media environment as well as managing change within their organizations to deal with that.

Several examples of this can be seen at WXPB. Some of the content that is produced for terrestrial broadcast is also made available as a podcast and is also made available for download directly from our web site. Each weekday, WXPB produces an on-air feature called the Morning Download in which our morning disc jockey presents a new artist, profiles the artist and then plays a song from the artist's recent album. This same song is made available as a download on our web site, along with text of the artist

profile, a picture of the artist and links to their websites. Another feature that is produced by WXPN is a weekly blues music feature called “The Blues File,” a five minute profile of a blues musician. The same content that is heard during the terrestrial broadcast of the Blues File is made available on the website for users to download or listen on demand.

WXPN produces “web-only” content as well; World Café Web Extras contains additional performances from bands whose segments are broadcast on the World Café that are not included in the original on-air broadcast of the segment. WXPN produces live concerts with National Public Radio (NPR) for the web only and these too are offered on WXPN’s web site (www.xpn.org).

PRPD is seeking to articulate the importance of this changing role of the program director not only to its members but to the public radio community at large. I argue that PRPD must create a body of knowledge to help train program directors and producers to “think multi-platformatically,” and to provide PD’s a framework for how we think and make sense of the world around us (Bolman & Deal, 2003).

Does Mindset Matter?

The concept of mindset, also referred to as cognitive schema, mental map, or paradigm, can be traced back to the work of Thomas Kuhn (1962) who first used the term “paradigm shift” in his influential book The Structure of Scientific Revolutions to describe a change in basic assumptions within the scientific research. As defined in the Merriam-Webster online dictionary, a paradigm is “a philosophical and theoretical framework of a scientific school or discipline within which theories, laws, and

generalizations and the experiments performed in support of them are formulated,”
(<http://www.merriam-webster.com/dictionary/paradigm>).

Mindset, or worldview, is further described as the values, beliefs, experiences and assumptions of the individual. Similarly to the concept a paradigm, mindset refers to a set of assumptions, methods or notations held by one or more people or groups of people which is so established that it creates a powerful incentive within these people or groups to continue to adopt or accept prior behaviours, choices, or tools. Govindarajan and Gupta (2001) discuss the concept of mindset and state that mindset is referred to as cognitive schema, mental maps, or paradigms, and mindset can be traced to the research of cognitive psychologists who have addressed the question of how people make sense of the world in which they interact.

Research in the field of organizational learning and knowledge management shows that learning and adaptation takes place within a prevailing mindset. (Pourdehnad, Warren, Wright & Mairano, 2006). Mindset is the gatekeeper of the learning process in the brain and the influence, importance and role that mindset plays on the outcomes of knowledge management plans and learning is essential in order for new learning to set in, thus laying a new foundation for a new mindset. A person can have a particular "mindset" that is so strong in a specific outlook that they do not see other perspectives, even though they might hear them and believe they have been given consideration to those perspectives (see Appendix E).

The view that mindsets can differ and that they can have a powerful impact on corporate strategies is illustrated by the case of Kenneth Olsen, founder and then CEO of

Digital Equipment (DEC). In the mid-1970's, DEC was the world's second largest computer company and the market leader in the microcomputer segment. Speaking at the World Future Society meeting in Boston in 1977, Olsen observed that "There is no reason for any individuals to have a computer in their home (Govindarajan, Gupta & Wang, 2001)."

This was the same year in which Steve Jobs and Steve Wozniak incorporated Apple Computer and launched the PC revolution. Olsen's mindset and his power over the company he had founded caused DEC to become a late entrant in the PC market, a delay that never allowed the company to recover its footing. By 1992, DEC ceased to exist as an independent company and was acquired by Compaq, a personal computer manufacturer (Govindarajan, Gupta & Wang, 2001).

CHAPTER 3

KNOWLEDGE MANAGEMENT

Knowledge Management Meanings

The concept of knowledge management (KM) began when Peter Drucker coined the term “knowledge worker.” Writing in The Effective Executive (1966), Drucker wrote:

Every knowledge worker in a modern organization is an "executive" if, by virtue of his position or knowledge, he is responsible for a contribution that materially affects the capacity of the organization to perform and to obtain results (p. 44).

Drucker (1966) predicted that major changes in society would be brought about by information and the creation and sharing of knowledge and he argued that knowledge more than 40 years ago had become the central, key resource for competitive advantage.

Hansen, Nohira and Tierney (1999) considered the strategic importance of knowledge management and wrote:

Knowledge management is nothing new. For hundreds of years, owners of family businesses have passed their commercial wisdom on to their children, master craftsmen have painstakingly taught their trades to apprentices, and workers have exchanged ideas and know-how on the job. But it wasn't until the 1990s that chief executives started talking about knowledge management. As the foundation of industrialized economies has shifted from natural resources to intellectual assets, executives have been compelled to examine the knowledge underlying their businesses and how that knowledge is used. At the same time, the rise of networked computers has made it possible to codify, store, and share certain kinds of knowledge more easily and cheaply than ever before. (p.55)

Knowledge management has been examined and defined with many frames of reference. For example, Ponelis and Fair-Wessels (1998) assert that knowledge management is a new dimension of strategic information management. Skyrme (1997) suggests that knowledge management is the explicit and systematic management of vital

knowledge and its associated processes of creating, gathering, organizing, use and exploitation, and it requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied.

Malhotra (1998) considered the context of knowledge management within the new world of business. He argues that knowledge management caters to the critical issues of organizational adaptation, survival and competence in the face of increasingly discontinuous environmental change. Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of human beings.

Davenport and Prusak (1997) offer a pragmatic description of knowledge in organizations:

Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms (p. 38).

Davenport and Prusak (1997) further note that knowledge management is the process of capturing, distributing, and effectively using “knowledge” which in this context includes both the experience and understanding of the people in the organization and the information artifacts, such as documents and reports, available within the organization and in the world outside. They further distinguish “knowledge” from “information”, and “information” from “data,” on the basis of value-adding processes which transform raw material into communicable messages (such as documents) and then into knowledge and other higher-order concepts.

The original source for Davenport and Prusak's work came from Ackoff (1989) who posited five categories into which content from the human mind can be classified: data, information, knowledge, understanding and wisdom (see Appendix F).

Knowledge management is the set of systematic and disciplined actions that be taken to obtain the greatest value from the knowledge available. An important distinction - which is fundamental to the concept of knowledge management - is that between "explicit" and "tacit" knowledge, suggested by organizational theorist Ikujiro Nonaka. While studying the innovative qualities of Japanese companies, Nonaka (1991) argued for the presence of explicit knowledge, which is formal and systematic and can be easily communicated and shared in product specifications or a scientific formula or a computer program. The other type of knowledge he acknowledge is tacit knowledge which is highly personal, hard to formalize and therefore difficult, if not impossible, to communicate.

The tacit aspects of knowledge are those that cannot be codified but can be communicated through training or gained in the course of personal experience. Tacit knowledge can be understood to be knowledge that is embedded in a culture (for instance a regional culture, organizational culture or social culture) and is difficult to share with people not embedded in that culture. Tacit knowledge can be understood as "know-how." It involves learning and skill but not a manner that can be written down. The knowledge of how to ride a bicycle is an example: one cannot learn to ride by reading a textbook; it takes personal experimentation and practice to gain the necessary skills.

While Nonaka (1991) emphasizes explicit knowledge, he also suggested that tacit knowledge is a crucial input to the innovation process. Nonaka and Takeuchi (1995) brought the concept of tacit knowledge into the realm of corporate innovation. They suggested that Japanese companies are more innovative because they are able to successfully collectivize individual tacit knowledge to the firm and that the society's ability to innovate depends on its level of tacit knowledge of how to innovate. Nonaka and Takeuchi offer the example of a Japanese bread maker whose development was impossible until the engineers interned themselves at one of Japan's leading bakers. During their internship, they were able to learn the tacit movements required to knead dough, and then transfer this knowledge back to the company.

The role of tacit knowledge seems critical. Polanyi (1966) suggested that scientific inquiry could not be reduced to facts, and that the search for new and novel research problems requires tacit knowledge about how to approach an unknown. Collins (2001) suggested that many laboratory practices are vital to the successful reproduction of a scientific experiment are tacit. Tacit knowledge may seem a simple idea but its implications are large and far reaching. If important knowledge is tacit, then how it can be effectively spread through an organization requires controls and procedures different from those of explicit knowledge. This means that useful knowledge will not be able to reach those who need it without direct, face-to-face contact. It also means that training newcomers in an organization becomes more time consuming, because they must be given time to learn on their own while doing, which reduces overall efficiency.

Importance of Knowledge Management

Skyrme (2002) and Davenport and Prusak (1977) note the main value of knowledge management is how it contributes to business performance and other organizational objectives. One reason why organizations are concerned about knowledge management is because of its apparent competitive advantage. In the current global business environment characterized by intense competition, organizations try to rapidly leverage their knowledge base to gain competitive advantage. Value results, for example, when an organization uses its knowledge to create customer loyalty. Prusak (1977) argued that an organization's competitive advantage depends significantly on what it knows, how it uses what it knows, and how fast it can know something new.

The interaction between KM and technology is important. The rapid rate of increasing advances in technology does not allow enormous amounts of information to be disseminated to people regardless of their geographic location or time zone. This change in the immediacy and availability of information has required the global workforce to become more educated, skilled and adaptable. From a knowledge management perspective, the complexities associated with these technological changes will cause us to think differently about the manner in which people learn whether it is inside or outside of the classroom.

Metaphorically, knowledge management may be understood as an insurance policy on institutional and cultural objectives. With organizational changes, restructuring, mergers and acquisitions, companies have lost some of their valued history and cultural

norms. An organization's ability to create, acquire, process, maintain and retain old and new knowledge in the face of complexity, uncertainty and rapid change are critical. Learning from and applying past experiences can accelerate the completion of future work and enhance the decision-making process.

Knowledge management may also be understood as central to a learning organization. Garvan (1993) wrote that a learning organization is one skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights. Learning organizations need to be skilled in approaches that lead to learning from experience and history, learning from others, and transferring knowledge quickly and efficiently.

An effective KM plan makes optimum use of experience and understanding of data in within organizations as well as related information acquired from the external resources. The objectives of knowledge management are to promote knowledge growth, knowledge communication and knowledge preservation in an organization. (Dieng, Corby, Giboin, & Ribiere, 2004).

Bukowitz and Williams (2000) advocate several key ideas within knowledge management when creating a knowledge management plan. The first is that the main objective of knowledge management is value creation. Organizations need to make the most of all types of knowledge by turning it into intellectual capital that can provide value to the people within the organization. The second idea is that knowledge management should lead to structures, methods and tools that are based on the idea of sharing. Finally, knowledge management processes must be both tactical and strategic;

tactical in aspects that involve finding information, using it, learning and sharing knowledge for short-term needs and opportunities; and strategic for long term growth, and innovation.

Skyrme (1996) suggests a wide variety of practices and processes used in knowledge management (see Table 2). A review of PRPD activities indicates that PRPD already engages in practices such as data mining, environmental scanning, sharing best practices and expertise profiling in other areas including audience research, fundraising and on-air practices and can transfer these knowledge management processes and practices new media.

Table 2. Practices and Processes in Knowledge Management

Creating and Discovering	<ul style="list-style-type: none"> • Creativity techniques • Data Mining • Environmental scanning • Knowledge elicitation • Business simulation • Content analysis
Sharing and Learning	<ul style="list-style-type: none"> • Communities of practice • Learning networks • Sharing best practices • After action reviews • Structured dialogue • Share fairs • Cross functional teams • Decision diaries
Organizing and Managing	<ul style="list-style-type: none"> • Knowledge centres • Expertise profiling • Knowledge mapping • Information audits • Measuring intellectual capital • IRM (Information Resources Management)

Drivers of Knowledge Management

Skyrme (2002) asks why the growth and interest in knowledge management? In analyzing identifies various case studies, Skyrme identifies a number of commonly recurring drivers knowledge management (Table 3).

Table 3. Drivers of Knowledge Management

Category	Description
Dispersion	The organization is dispersed over several geographical locations. This makes it necessary to find out what is already known elsewhere to avoid “reinventing the wheel.”
Change/restructuring	Constant reorganization means that the relationships in which informal knowledge is shared are often broken.
Complexity/interdependencies	Many organizational activities require inputs from other departments and their own activities may impact others.
Improving business performance	By sharing “best practices” across an organization, the performance of the less well performing units can be brought closer to that of the best.
Customer relationships	The higher value placed on good customer service and customer relationships puts a premium on customer knowledge – understanding their needs, bringing together customer information into a single place, and using the knowledge acquired to develop better products and services.
Need for innovation	Faster, better, cheaper is the result of more effective innovation; this requires an innovation system that converts knowledge (ideas) efficiently and effectively into products, services and processes.

Better enabling technology	The growth of functionality of the Internet (including collaborative workspaces, discussion groups, content management systems and portals) makes it easier to assemble and share information across organizational boundaries.
Minimizing uncertainty and risk	Better access to relevant knowledge will help managers make better decisions and so minimize various risks that may confront the business.
Regulation	Quality of information and reporting is increasingly required by regulatory bodies; a good approach to knowledge management will allow such information to be readily accessed.

CHAPTER 4

KNOWLEDGE MANAGEMENT FOR PRPD

PRPD offers value to its members by defining and advocating principles of quality public radio programming, by training program decision makers on basic and advanced programming skills, and by building stronger connections among various facets of the public radio community. Using PRPD's strategic objectives I propose to create a new media KM plan that will draw from the knowledge of its membership as one of its resources with a goal of fostering a greater connection amongst PRPD members.

A knowledge management plan for PRPD should consider a focus on the multi-platform delivery of content and the organization and decision-making related to the delivery of that content. PRPD's 2006 strategic plan identified several key issues facing PD's in the new media environment which will become the basis of the strategic plan and planning objectives. These include: keeping up with new technologies and programming choices and the impact these have on multiplatform service delivery on our audiences (delivery); how the multiplatform environment affects station staffing, organization and decision-making (organizational); and a third area that relates to managing growth and sustainability by identifying new revenue to help fund multi-platform growth and the increasing costs of web and internet based services (sustainability).

The Delivery, Organization and Sustainability (DOS) structure is a framework that program directors can use within their organizations to map the factors effecting strategic decision making in new media. The plan should include processes, tools and methods intended to be shared amongst PRPD members. Skyrme's (1996) Practices

and Processes In Knowledge Management identifies potential sources of information from which PRPD can use to gather information and knowledge. The Public Media Strategy Map, a tool for developing and evaluating station strategies for online service provides another framework to inform PRPD's knowledge management plan (see Appendix G). The Strategy map is designed to lay out factors and choices that exist in the public media (and online) strategic landscape. The map can be used by stations as a diagnostic tool for determining where there are gaps or soft-spots in your existing strategy – whether implicit or explicit. It can be used as a development tool for sorting through, pulling together and articulating a clear strategy, as navigating tool to map what stations learn experimenting with multiple choices in search of which ones work, and as a means of communicating an online strategy and making clear the choices that have been made. The map can also clarify decision and choices that have been rejected, an important way of testing alignment.

The strategy map has the potential a benchmarking and analysis tool, by providing a common language and reference points for comparing, diagnosing, sharing, discussing and debating public media and online strategies. Station personnel can inventory and classify options and ideas being developed by stations and elsewhere, help identify which nodes and choices are most critical or vexing -- and in need of more research and analysis. Additionally, the map can provide a starting point for redefining and reconfiguring the critical factors and range of choices as the media environment changes further.

I recommend that PRPD's new media knowledge management plan be web based, utilizing web tools like wikipedia and blogs and located on the PRPD web site.

Encouraging the idea of sharing information and knowledge, PRPD should create a unique center of knowledge using wiki space software that will be used to collect, gather and manage the information that will be accessible to and created by PRPD members and industry experts. Each topic will be created as its own unique module of knowledge and will follow a template (Table 4) that PRPD members can contribute to.

Table 4. Template for Web Based Knowledge Module

Category	Description
Title and description	This is the title and description of the topic to be covered.
Objectives	What skills, knowledge or concepts will be addressed?
Case studies	Relevant stories/case studies from radio stations or media outlets related to the topic.
Resources/Articles & Books	Collection of articles and books related to the topic.
Resources/Web	Collection of web based sites or blogs related to the topic.
Resources/Audio & Video	Collection of how-to-videos and audio content related to the topic.
People	List of experienced people and their contact information in this topic area.

Objectives of PRPD New Media Knowledge Management Plan

A new media knowledge management plan for PRPD will provide knowledge and assistance to program directors in public radio organizations on how to strategically think about, incorporate and implement new media into their organizations. By creating and

cultivating a knowledge management program PRPD has the opportunity to position itself as the preeminent public radio system wide facilitator of new media knowledge. As with many organizations, knowledge exists within the minds of the workforce. PRPD new media knowledge management plan should identify ways to capture, create and share both tacit and explicit knowledge.

Table 5 outlines objectives for a new media knowledge management plan for PRPD. I believe these objectives align with the broadest goals of PRPD as an organization to lead, train and provide resources to public radio program directors and other programming decision makers including station staff and program producers by building stronger connections among various facets of the public radio community.

Table 5 – Objectives of PRPD knowledge management plan

- | |
|---|
| <ul style="list-style-type: none"> • To recognize the amount of knowledge and skills public radio program directors have in using new media. • To create a resource plan for public radio program directors to use to implement new media in their organizations. • To promote open sharing of new and existing knowledge in new media. • To encourage knowledge creation, knowledge dissemination and knowledge application amongst public radio program directors. • To create a plan that balances and combines tacit knowledge and explicit knowledge. |
|---|

Knowledge Creation, Dissemination and Application

Davenport, Prusack and Strong (2008) identify knowledge management as a concerted effort to improve how knowledge is created, delivered and used. They submit that a pragmatic knowledge management plan focus on three areas including knowledge creation, knowledge dissemination and knowledge application.

Knowledge creation programs define the type of information organizations need and why they need it. Under this program, organizations solicit ideas, insights and innovations from employees within the organization, customers and business partners. Technologies such as corporate blogs and wikis – which are collaborative web sites – are encouraging broader participation in knowledge creation.

An example of a company using a knowledge creation strategy is the Nokia Corporation. To take advantage of local innovation in local offices around the globe, Nokia has set up web sites and wikis to encourage employees to share what they know. Researchers are urged to record their observations in blogs and collaborate with universities, design firms, and telecommunications-industry partners. The knowledge that comes out of these efforts which ranges from technical know-how to a broader understanding of the way different cultures address mobility has helped Nokia remain a leading player in the world's mobile phone market (Davenport, Prusak & Strong 2008).

Disseminating knowledge via technology is a common activity within knowledge management. Organizations disseminate and share knowledge through a variety of platforms including corporate intranets, web portals and database software programs. The focus is on putting all knowledge in one place regardless of its source. The result is a one stop information shop for employees within organizations to share critical knowledge, best practices, and significant research.

Obtaining and sharing knowledge are beneficial only if employees use it to get better at what they do – that is, they learn from it; they apply the knowledge that they create, share with others or acquire themselves. Davenport, Prusak and Strong (2008)

note that organizations find the best way to encourage workers to put knowledge to use in application are through programs such as mentoring, workshops and other initiatives.

One way of accomplishing this is by creating “communities of interest,” a form of social learning that occurs when people with a common interest in some subject or problem are brought together to collaborate to share their ideas, solutions and innovations. Typically this is often done in face-to-face meetings, seminars and webinars.

Linking knowledge creation and dissemination with learning is a practical and valuable strategic approach in knowledge management plans. It has the potential to reap important organizational benefits. Senge (1990) wrote that organizations learn only through individuals who learn. Individual learning does not guarantee organizational learning. But without it no organizational learning occurs. The rate at which organizations learn may become the only sustainable source of competitive advantage (Senge 139).

CHAPTER 5
RECOMMENDATIONS

I offer suggestions to PRPD for moving forward in implementing a new media knowledge management plan. Table 6 outlines specific actions PRPD should consider implementing.

Table 6. PRPD Plan Recommendations

1.	Create a unique committee on the PRPD board of directors specific to developing a new media knowledge management plan. The committee should include a representative sampling of Program Directors, Web and internet technology managers and multi-platform content producers. Under PRPD's current organizational structure the Training committee is responsible for knowledge management in areas such as fund raising, and principles of programming news and talk shows, classical music research and programming core values research. While typically in the past the creation of new knowledge groups has fallen under the guise of Training, creating a new unique group for New Media has the potential to raise the importance and awareness of new media as a strategic goal for PRPD.
2.	Collaborate with public radio new media organizations such as the Integrated Media Association (IMA) and Public Radio Exchange (PRX). Both of these new media focused organizations work with member media outlets for the benefit of public broadcasters. In October 2008 PRPD began working with National Public Radio and Jacobs Media, a media research group on a national survey of public radio listeners' new media and technology habits and behaviors. The results and data from the survey when published is exactly the kind of knowledge that should be shared amongst PRPD members.
3.	Create a distinct New Media area on the PRPD website under the PRPD Knowledge Base section.
4.	Create a database of PRPD members and their specific new media expertise, available to members via the PRPD website. For example, if there is a program director who has expertise in social media or blogs this information could be put in this database with the potential for program directors looking for knowledge in this area could use it as a resource.
5.	Identify ways to facilitate the formation of specific "communities of interests" within the PRPD membership and establish a process for members to access these communities for knowledge sharing and learning.
6.	Use Web 2.0 tools such as the PRPD blog and develop a new media wiki that will be used to capture and share new media knowledge.

7.	Conduct annual surveys of the PRPD members to find out what specific areas of new media its members are interested in learning more about and provide knowledge sharing opportunities through platforms such as webinars and sessions at the PRPD annual conference. The information learned from these surveys should guide the PRPD New Media committee in its decisions to focus on developing knowledge creation, sharing and learning/applications
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Skyrme's (1996) practices and processes in Knowledge Management provide a model for PRPD to further build their new media knowledge management plan.

Skyrme's practices in creating and discovering knowledge, sharing and learning knowledge and organizing and managing knowledge support Davenport, Prusack and Strong's (2008) practical constructs of knowledge creation, dissemination and application. Together they posit a model for PRPD's new media knowledge management plan which I elaborate below.

Skyrme (2006) notes that in the knowledge sharing cycle, various knowledge management processes include the collecting, organizing, sharing, and exploitation/use (application and learning) of knowledge. Table 7 adapts this process and suggests PRPD's potential use of the knowledge sharing cycle in formulating their knowledge management plan.

Table 7. Knowledge Sharing Cycle

Process	Description	PRPD Knowledge Management Application
Collecting	Knowledge is gathered on a routine bases or as needed in the form of a knowledge inventory	Conduct information audit of existing new media knowledge. Includes data mining, environmental scanning, and content analysis relevant to new media.
Organizing	Knowledge is organized by key concepts and meta data analysis.	Using wiki tools, templates that categorize information that is collected.
Sharing	Knowledge is shared over a variety of platforms.	Sharing includes: Best practices, creating communities of interest, developing a central portal for knowledge, conducting webinars and sessions at conferences.
Use/Exploitation	Learning programs are created to allow knowledge to be put to use and reviewed by users.	Programs include: After Action Reviews (AAR) of specific initiatives; project reviews that reveal lessons learned; case studies and storytelling as a way to transfer knowledge.

Driving Forces

In order to review the current media environment in which public radio has a stake one must look at the importance of the forces that shape the competitive landscape. In strategic management, driving forces are factors that influence an industry's competitive structure and business environment. Industry conditions change because important forces are driving industry participants (competitors, customers, or suppliers) to alter their actions. These driving forces in an industry are the major underlying causes

of changing industry and competitive conditions. All industries are characterized by trends and new developments that gradually or speedily produce changes important enough to require a strategic response from firms. (Thompson and Strickland, 2003).

The idea of driving forces has been studied extensively and is a key component to the process of strategic competitive analysis and environmental scanning. Michael E. Porter, a professor at the Harvard Business School created the “five forces analysis” framework and model for industry analysis and business strategy development. Porter (1980) points out that while it is important to judge what growth stage an industry is in, there’s more analytical value in identifying the specific factors causing fundamental industry and competitive adjustments. Industry and competitive conditions change because forces are in motion that creates change. The most dominant forces – called driving forces –have the biggest influence on what kinds of changes will take place in the industry’s structure and competitive environment (Porter, 1980).

Sound analysis of an industry’s driving forces is a prerequisite to sound strategy making. Without ardent analysis of what external factors will produce the biggest potential challenges in the company’s business over time, managers are ill prepared to craft a strategy matched to emerging conditions (Thompson and Strickland, 2003).

Environmental Scans

One way to become aware of driving forces is to methodically scan the environment as part of developing a knowledge base and framework for effectively managing your organization. Managers use environmental scanning to spot emerging trends and indicators of change. The purpose of environmental scanning is to raise the

consciousness of managers about potential developments that could have an important impact on industry conditions. Amara and Lipinski (1983) suggest environmental scanning helps managers lengthen their planning horizons and to develop clear strategic thinking about the opportunities and threats they have before them.

Rea and Kerzner (1997) note that the environmental scanning process should identify demographic, economic, political, technological, social and ecological events, forces and trends that affect an organization's success. Thompson and Strickland (2003) advocate environmental scanning involves studying and interpreting the sweep of social, political, economic, ecological, and technological events in an effort to spot budding trends and conditions that could become driving forces and typically involves time frames beyond the next one to three years.

Relevant to the discussion for analyzing environmental forces that shape the future for how public radio program directors manage in a multi-platform environment is an understanding and grasping of the current body of research in technology and how consumers are using and exploring radio in all its multiple digital platforms. I suggest that analysis and data mining of the current research in new media become a significant component of of PRPD's knowledge management plan. The purpose of environmental scanning is to raise the consciousness of managers about potential developments that could have an important impact on industry conditions and new opportunities or threats (Thompson & Strickland, p. 100).

Frequent scanning of the environment and an understanding driving forces that impact media has the potential to benefit program directors by allowing them to frame up the changes around them to better inform decisions they make within their organizations.

As a service organization for public radio program directors and decision makers in the public media space, PRPD has the potential opportunity to provide greater value to its members by creating a knowledge management plan that combines knowledge creation, sharing and application with its own organizational expertise in creating unique knowledge in the environmental forces that drive the practices of radio stations and media outlets.

CHAPTER 6

CONCLUSIONS

This thesis began with my interest in combining what I have learned in my career as a program director about traditional and new media convergence and what I have learned and studied about in knowledge management in the Organizational Dynamics program. The intent was to create a knowledge management plan for my program director colleagues in public radio faced with similar challenges as myself to make decisions in a rapidly changing media environment. I have applied my own personal experience and knowledge I have gained in my career with existing ideas and research within the field of knowledge management to create this plan.

As the Program Director at WXPB, I regularly engage in conversations with my colleagues in public radio who share similar responsibilities in their organizations. The most frequently asked questions we ask of each other are “how do we keep up with the constant change?” and “what knowledge do I need to do a better job?” As media evolves at a seemingly whirlwind pace, I have personally found that by having a framework to make well informed decisions I am able to make sense of the uncertainty. I do this by continuously following current trends and research in media which allows me to assess what seems to be working for organizations; many of which are struggling with ongoing change. Table 8 outlines some of the various sources I use to follow trends in internet, multi-media research, Web 2.0 and social media.

Table 8. Sources of Knowledge

Source	Description
Edison Media Research http://www.edisonresearch.com/internet_studies.php	Latest internet and multimedia research
Pew Internet & American Life http://www.pewinternet.org/	Pew is a “fact tank” that provides information on internet and multi-media related issues, attitudes and trends shaping America and the world.
Center For Social Media http://www.centerforsocialmedia.org/	Center for Social Media showcases and analyzes strategies to use media as creative tools for public knowledge and action.
Knight Digital Media Center http://www.knightdigitalmediacenter.org/	This site offers research and resources on the convergence of traditional and new media.
Confessions Of an Aca-Fan – The Weblog of Henry Jenkins http://www.henryjenkins.org/	Henry Jenkins is the Director of the MIT Comparative Media Studies Program.

Andy Carvin's Waste of Bandwidth http://www.andycarvin.com/	Blog about public media written by Carvin who is the Director of Online community strategies for National Public Radio.
Robert Paterson's Weblog http://smartpei.typepad.com	Research and reflections on public media trends.
Groundswell http://blogs.forrester.com/groundswell/	Forrester Research blog about social media and media convergence.
Technology 360 http://technology360.typepad.com/	Environmental scan on media written by Dennis Haarsager, Board Chair/National Public Radio.
Forrester Research http://www.forrester.com/rb/search/results.jsp?N=71546	Emerging trends in Web 2.0 and social media.
Andrew McAfee's Blog http://blog.hbs.edu/faculty/amcafee/	Blog written by Andrew McAfee, Associate Professor at Harvard.
Mark Ramsey's Hear 2.0 http://www.hear2.com/	Media researcher's latest findings and musings on media trends.
Occam's Razor http://www.kaushik.net/avinash/	Web analytics blog written by Avinash Kaushik.
Beth's Blog: How Nonprofits Can Use Social Media http://beth.typepad.com/	Written by researcher Beth Kanter, her blog A place to capture and share ideas, experiment with and exchange links and resources about the adoption challenges, strategy, and ROI of nonprofits and social media.
Social Media Today http://www.socialmediatoday.com/	Online social media journal.
Center For Social Media http://www.centerforsocialmedia.org/	Center for Social Media showcases and analyzes strategies to use media as creative tools for public knowledge and action.

By creating my own personalized albeit informal knowledge management plan, I am better informed to make improved decisions for WXPB. PRPD has the opportunity to provide a formalized knowledge management plan for the public radio system by drawing on the collaborative knowledge of program directors like myself and combining it with the voluminous amount of both tacit and explicit knowledge that exists within my field.

In September 2008 at the annual PRPD conference in Los Angeles, program directors gathered for seminars and sessions that reflected a broad range of issues facing our stations. The sessions represented the breadth of the challenges I have written about in this paper that program directors are facing as we grow our audiences and provide public service.

Sessions like “Making The Web and Broadcast Work Better,” discussed how the multi-platform delivery channels are converging. “The Changing Job of the Program Director” examined the impact of changing technology on the daily responsibilities of program directors, how to make decisions for creating content and distribution on multi-platforms and how to create a metrics program for measuring the success of social media initiatives. “The NPR Listener Media Day” presented an in-depth look and research on how public radio listeners use technology throughout their day. A keynote speech by Bruce Theriault, the Senior Vice President of Radio from the Corporation for Public Broadcasting (CPB) focused on the impact of demographic shifts and disruptive technology on the future and identified threats and opportunities ahead for public radio

stations. “Measuring Online Service” discussed efforts to improve the measurement of multi-platform consumption. Additional sessions covered topics including “monetizing websites,” “how to fund raise for HD2 radio service,” “social media and public radio,” and “diversifying web and terrestrial content in your organization.” These examples offer a small glimpse in to the issues facing individuals and organizations, yet they are sometimes dizzying and require thoughtful discussion and analysis. At its annual conference and throughout the year, PRPD through webinars, workshops, the use of the PRPD blog, and the creation of distinct best practices research, PRPD as a national organization is a convener of knowledge. Creating a more formalized knowledge management plan that ties in to their mission, builds on knowledge creation, dissemination and application, and cultivates the tacit and explicit knowledge of its individual and organizational members, PRPD can harvest and produce high value information to better understand the key issues facing program directors in the future.

I wrote this paper with the purpose of providing a roadmap to PRPD to develop a knowledge management plan for new media. Table 9 outlines the principles that should guide PRPD as they develop their new media knowledge management plan. These principles draw on the work of Davenport, Prusak and Strong’s framework of knowledge creation, dissemination and application. The plan builds further on Skyrme’s practices and processes in knowledge management including creating, discovering, sharing and applying knowledge. It embraces the notion of driving forces and environmental scanning that effect the strategic outcomes of organizational decision-making processes. The plan

draws on web 2.0 tools and technology that enables collaboration and allows easy access to the knowledge. Critical ideas developed by Nonaka and Takeuchi, and Polanyi, in the areas of explicit and tacit knowledge are key to the implementation of the plan.

Table 9. Guiding Principles of a Knowledge Management Plan for PRPD

1.	Create a New Media Knowledge Management committee and chair of the committee as part of the PRPD board of directors.
2.	Use Web 2.0 tools to document knowledge management.
3.	Identify knowledge that is crucial to PRPD. Assess in more detail the needs of program directors.
4.	Build the plan on principles of knowledge creation, dissemination and application. Define the scope of knowledge efforts where collecting and sharing knowledge will yield the highest impact.
5.	Align knowledge management efforts to PRPD strategic plan.
6.	Analyze existing knowledge in public radio system.
7.	Provide a mix of explicit and tacit knowledge with an emphasis on the sharing of tacit knowledge.
8.	Stay abreast of the most current research and trends, incorporating best practices and stories about success and failure.

Knowledge management systems work best when the people who generate the knowledge are the same people who can create it, store and share it, explain it to others, and coach them as they try to implement it. A new media knowledge management plan created by PRPD and curated by and for the members of PRPD is likely to provide a significant learning experience to the public radio system.

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APPENDIX A

HISTORY OF WXPB 1960-1995

In 1960, WXPB increased its FM power one-hundredfold to 1000 watts and installed a new broadcasting tower on the roof of the Gates Memorial Pavilion of the Hospital of the University of Pennsylvania (HUP). Although programming on WXPB-FM was no longer geared mainly toward the University population, it hardly deviated from that on WXPB-AM. Both stations included educational lectures (though the FM broadcasts emphasized this to a greater extent), news and sports coverage, as well as programs devoted to classical, jazz, and folk music. The major difference between the two stations was that the AM station aired commercial messages, while the FM did not.

In February 1965, however, WXPB-AM began to air separate programming from WXPB-FM every weeknight. This programming focused on popular (i.e., "rock") music, which WXPB staff had previously excluded, following an unwritten law. The nightly "four-hour rock chaos" on WXPB-AM - a precursor to "progressive," underground rock radio - proved very popular with Penn's students. By 1968, WXPB-AM devoted nearly its entire schedule to rock music.

At the same time, WXPB-FM's focus seemed to be shifting from "educational radio" to "community radio." By the late 1960s, WXPB-FM was broadcasting alongside its traditional programs a daily program entitled "Phase II," which mixed rock with folk, jazz, blues, and even classical musics, and a program entitled "Rafreeba" (Radio Free Black America), which provided a forum for discourse on black nationalism. Other major

changes occurred in this period, as well. In January 1969, WXPN-FM began to broadcast entirely in stereo, becoming the first non-commercial station in Philadelphia to do so. After twenty-five years with its headquarters in Houston Hall, moreover, the station relocated all of its facilities to Wayne Hall at 3905 Spruce Street in the summer of 1970.

The year 1973 witnessed the beginning of an escalating series of troubles for WXPN. During a soccer broadcast late that year, a station engineer accidentally aired a prank advertisement promoting a fake drug for sexual enhancement. Several listeners complained to the University administration about the phony commercial, considering it obscene. Around the same time, a group of students active in WXPN accused other staff members of using alcohol, marijuana, and other illegal substances at the station headquarters. Then in December 1973, the station's business manager was impeached and removed from office for mismanagement of station funds.

In 1974, the University received additional complaints about "obscene" broadcasts from WXPN, such as readings from "erotic" literature, and the FCC began to investigate several allegations of misconduct by the station. The controversy came to a head when WXPN returned to the air in January 1975. Two broadcasts of an early-evening talk show called "The Vegetable Report" caused listeners to complain to the University and the FCC that obscenity had been broadcast. When WXPN's license expired in July 1975, the FCC declined to renew it until its own investigations were complete.

In December 1975, the FCC fined the Trustees of the University \$2,000 for obscenity and other violations at WXPN. The Trustees paid the fine but vowed to fight

for the renewal of the station's license. After months of investigation, on April 4th, 1977 an administrative judge for the FCC ordered WXPB off the air in fifty days because of the University's apparent lack of control. This marked the first time that the FCC had revoked a non-commercial broadcast license due to obscenity, and the case was soon considered a landmark in broadcasting law. Penn's Trustees appealed the decision immediately, claiming that more effective management had been set in place, and many listeners wrote to the University and the FCC in support of the station. During the drawn-out court battle between the Trustees and the FCC, WXPB continued broadcasting without a license through a series of temporary permits. Finally, in 1980, more than five years after the controversy started, the FCC approved a new license for the station.

During the years when its license was in limbo, WXPB underwent great internal change. In January 1976, the Trustees of the University determined that a professional station manager should guide the station. For this task, they hired Jim Campbell, the former general manager of a college station in New York, in July 1976. A few months earlier, in March, a Board for Policy and Standards had initiated a series of meetings to examine the development of WXPB's operations from the station's inception to that time, so that it might recommend future improvements to the station. To the dismay of those working at the station, there were no student representatives on the Board, whose eight members were selected from the University faculty and the communications field at large. Several persons who served on the Board had worked at WXPB while undergraduates at Penn.

In December 1976, the University's Student Activities Council (SAC) approved a new constitution for the station which declared that only persons affiliated with the University could vote on WXPN's board but set no restrictions on who could work for the FM station. As a result, many former students continued to work at WXPN after their graduation from the University, and an increasing number of community volunteers became involved in the station. By 1980, undergraduates comprised less than one-third of WXPN-FM's operating staff. Once student-run, the station had become student-participatory.

As student-involvement at WXPN decreased SAC began to cut its level of funding for the station. Of WXPN's \$116,000 budget in 1980 \$17,000 came from SAC. In April 1981 SAC allotted only \$1,000 for the station. Although it continued to stress its commitment to the student body at Penn, WXPN was forced to rely less on funding from the University and to find alternate sources of support.

In 1979, the station first applied for grants from the Corporation for Public Broadcasting (CPB), with the avowed intent of becoming an affiliate of National Public Radio (NPR), a prestigious network of non-commercial stations. Though the CPB turned down these initial grant proposals, it had become clear that WXPN-FM was moving away from a focus on the University. In the late 1970s WXPN-AM officially changed its name to WQHS and became completely student run and operated.

In March 1982, at the recommendation of the University Council, the composition of eight-member WXPN's governing body was altered to include representatives from Penn's student body and the listening community, as well as from the University's faculty,

trustees, and administration. The Council, furthermore, encouraged the station to increase its level of student involvement. By late 1986, approximately half of the station's staff were students at Penn, and another quarter were former students. The importance of contributions from listeners increased as well, accounting for about two-thirds of WXPN's operating income in 1984. Throughout the 1980s, however, the station struggled with annual financial deficits and other internal problems.

By 1985, WXPN's governing board, after working with a hired consultant, had resolved that the station should work to meet the qualifications for annual funding from the CPB. With support from University administration, the station undertook improvements to its physical facilities and added one paid staff position to meet the CPB's minimum requirement of five. After these changes, WXPN officially qualified for and began receiving CPB funding in June 1986. Other changes also took place in 1986. In the fall, the station governing board was renamed the WXPN Policy Board and restructured to include ten members. In November, the Office for the Vice Provost of University Life led a search which resulted in the hiring of Mark Fuerst as the station's third professional general manager.

WXPN's programming in the mid-1980s had exhibited great diversity, a juxtaposition of classical music with "punk" rock and folk songs with avant-garde electronic music. Despite stiff opposition from many listeners and volunteer staff members, Mark Fuerst began as general manager to change the station's schedule, seeking to apply some structure and continuity. In addition to new local programming,

WXPB began to import programs, ranging from news and analysis to "New Wave" music, from national and international public radio networks.

In late December 1987, "Kids America," an acclaimed call-in program for children that WXPB carried in the evenings, was terminated by its station of origination, WNYC in New York, after the CPB discontinued its funding for the program. With a large, temporary commitment from the University (and, later, a three-year grant from the William Penn Foundation), WXPB was able to hire the host of "Kids America," Kathy O'Connell, and create a local version of the program. On 4 January 1988, "Kid's Corner" made its debut on WXPB. The program continues to be one of the most popular on the station.

In May 1989, WXPB won three of the eleven prestigious CPB Public Radio Awards, in children's (for "Kid's Corner"), community service, and public affairs programming. Two years later, in March 1991, "Kid's Corner" won George Foster Peabody Broadcasting Award, an honor which recognizes excellence in broadcast media, commercial or non-commercial. At the same time, WXPB's listening audience had increased drastically, from an average of 40,500 in spring 1986 to an average of 78,100 in spring 1989.

In the midst of this success, WXPB received a highly competitive \$305,000 grant in March 1990 to research and develop a program of contemporary world music for national syndication. With the help of several consultants, Mark Fuerst and others at the station established the framework of a daily, two-hour program that "reflects and anticipates trends in international popular music." In January 1991, the CPB approved

WXPN's proposal and issued a second grant to begin production. Trial broadcasts of "The World Café," as the program became known, began on WXPN on 11 August 1991, and on 14 October 1991 the show premiered nationally on five stations. By the end of 1992, carriage of "The World Café" had increased to fifty-five stations. In Fall of 2007, National Public Radio reported World Café as being on 185 hundred stations throughout the country with a weekly national audience of 513,000 listeners.

In the 1990s, WXPN has extended the scope of its broadcasts even further. In 1993, WKHS (90.5 MHz FM) in Worton, Maryland, a suburb of Baltimore, began to simulcast WXPN's programming every weeknight and all day on the weekends. The following year, a similar arrangement began with a station in Allentown, Pennsylvania. In September 1995, moreover, WXPN began to broadcast remotely twenty-four-hours-a-day through WXPB (88.1 MHz) in Harrisburg, Pennsylvania. In October of 2007, WXPN purchased WZXM in Harrisburg, a translator in Hellum, Pennsylvania and sold off WXPB. These stations cover a broader coverage area allowing listeners to hear the station in Central Pennsylvania including Harrisburg, Lancaster and York. WXPN also streams all of its broadcasts live over the Internet, enabling computer users anywhere in the world to hear its programming.

APPENDIX B

WXPB MISSION STATEMENT

WXPB is the public radio service of the University of Pennsylvania. Its primary mission is to reflect the broadest educational goals of the University by serving listeners interested in contemporary music, art, culture, and society, and the traditions, which inform them.

As part of its mission, WXPB will:

- Present a program service of the highest quality, valued by its listeners, establishing the station as one of the region's significant institutions of popular culture.
- Play a national leadership role in public radio and new electronic media, working to expand the capacity and reach of the public broadcasting system and the value of its services.
- Provide significant opportunities for students throughout the station enabling them to evaluate potential careers in broadcasting, the music industry, and other related occupations, and enhancing their prospects for success in these fields.
- Create programming consistent with listener interest that bring the intellectual and cultural assets of the University to the station's audience.

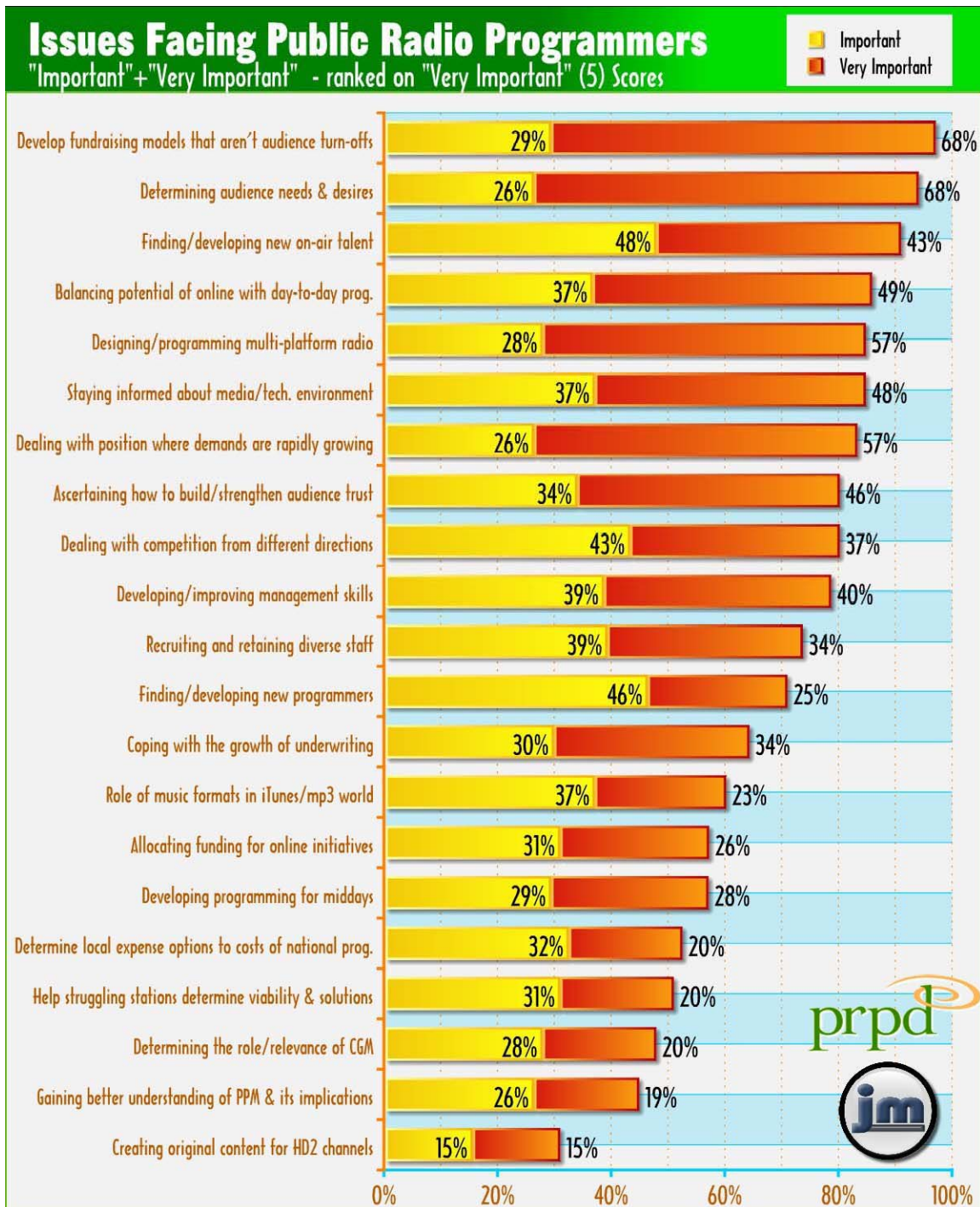
In carrying out its Mission, WXPB will:

- Maintain its financial independence, attracting necessary financial resources from the listeners and organizations that value the station's programming.

- Provide service beyond the local region by distributing programming through traditional station networks and new electronic media such as the Internet and direct broadcast satellite.
- Serve the University as a center of expertise in audio programming, production, and delivery, by offering professional assistance and studio facilities to University members on a consulting basis.

APPENDIX C

ISSUES FACING PUBLIC RADIO PROGRAMMERS



APPENDIX D

Public Radio 2010: Challenge And Opportunity in a Time of Radical Change

Thomas J. Thomas and Theresa R. Clifford

There is a continuing, powerful change in the social and economic architecture of information, culture, entertainment, and education in our society. Electronic media are both the drivers of that change and themselves transformed by it. That is the powerful turning point that, more than anything else that surrounds us, is both the challenge and the opportunity to which we must respond.

Increasing capacity and declining cost in spectrum bandwidth, computer storage, and computer processing power are enabling extensive personal control over all kinds of electronic content. The future that is ahead of us in radio, in video, and in other media that will probably have names we don't even think about today, is one of time shifting, of pausing and resuming, of editing at a personal level, of searchability, of personal archives, of forwardability and integration of content that comes from multiple sources. We're in a truly new delivery context in the field in which we work, one in which there are multiplying pathways to reach our listeners: satellites, streaming, on-demand access, digital bandwidth. There are multiple channels that are leading to erosion of each of our own single channel's share and increasing the focus on niche applications in serving our communities and our listeners. And content creators of all kinds, both familiar and new, are rushing to exploit these capacities.

This means a changing role for us as broadcasters, a decline in the traditional local radio broadcast functions as a primary audio delivery channel, a scheduler of the listening experience, and a gatekeeper to content. But there is something more than that,

an emotional disconnect. It's a reduced margin for error that we have as alternative media choices explode, that that initial, elemental responsive chord of radio that many of us grew up with is being replaced by a chorus of sound coming from many different places that only increase in number.

We are in a time of redefinition for public media that is every bit as important and profound as the very earliest years of our field. If one thinks back to the late 1960's and early 1970's when public broadcasting first put its footprint on the American media landscape, what a different time that was. It was an environment in which television was three networks and maybe an independent channel, radio was Top Forty, most Americans read a daily newspaper, and we had yet to go to the moon. It was a very different America in which the heritage of public broadcasting was formed – that great legacy that has sustained and informed and guided what we've done in the intervening years. A similar task of defining who and what we are on today's landscape is what is now before us. We, ourselves, must create and implement a new framework for a next generation of our work, a renewed vision of meaningful public service and a shared strategy for growth.

APPENDIX E

Unlearning/Learning Organizations – The Role of Mindset ⁽¹⁾

John Pourdehnad, Bruce Warren, Maureen Wright and John Mairano

Introduction

Most learning by adults and organizations occurs when something new replaces in the mind that which was previously thought to be known, that is, unlearning. Unlearning must frequently precede or at least occur simultaneously with learning. Nevertheless, the literature on organizational learning has virtually ignored the unlearning process until recently when few authors have given it some attention. Research in the field of organizational learning and knowledge management shows that learning and adaptation takes place much more easily within the prevailing mindset (view of the world) than outside of it.

Unlearning is a challenge because the human tendency to preserve a particular view of the world is very strong and the change to a new paradigm not only requires an ultimate act of learning but also of unlearning.

Our assumptions about the nature of reality can impose the most severe restrictions on our ability to learn. Unlearning these assumptions requires raising them to consciousness and this can occur only when we confront the dilemmas that they create. Therefore, raising our worldview to consciousness is among the most important things we can do to enhance our learning and unlearning. The intention of this paper is to demonstrate that it is possible to design systems that not only facilitate learning and

unlearning within the prevailing worldview but it can generate questions about the adequacy of the assumptions that make up that concept of reality.

Mindset/Worldview and Unlearning – A Review of the Literature

Learning *required* is identified by knowledge gaps between intended outcomes and actual results. A lack of information, a lack of skill or a lack of resources may evidence these knowledge gaps. Such gaps could be characterized as external to the individual and are therefore often visible.

Unlearning *required* is identified by perceptual gaps between the individual's mindset and actual situations. Mindset, or worldview, for the purposes of our discussion here, is described as the values, beliefs, experiences and assumptions of the individual. Govindarajan and Gupta (2001) discuss the concept of mindset and state that mindset is “also referred to as cognitive schema, mental maps, or paradigms, and mindset can be traced to the research of cognitive psychologists who have addressed the question of how people make sense of the world in which they interact.”

These gaps would be characterized as internal to the individual and are therefore frequently unseen.

Mindset is further defined as a:

- Person's frame of reference that is fixed. A person can have a particular "mindset" that is so strong in a specific outlook that they do not see other perspectives, even though they might hear them and believe they have given them consideration.

This prevents looking at new options in a realistic sense

(ag.arizona.edu/futures/home/glossary.html).

- A particular point of view through which one experiences reality. A mindset can feel like acting or role-playing during training, but ultimately one simply becomes the mindset that one wishes to have. At that point, it is an honest expression, although it is a chosen point of-view (www.questkagami.com/glossary.html).
- A mindset, in decision and general systems theories, refers to a set of assumptions, methods or notations held by one or more people or groups of people which is so established that it creates a powerful incentive within these people or groups to continue to adopt or accept prior behaviors, choices, or tools (en.wikipedia.org/wiki/Mindset).

The complexity and diversity in defining unlearning is clear when completing a review of the literature on this topic which is relatively recent in its development. The influence and importance of mindset specifically on learning – and unlearning – transcends subject matter, specific organizations or systems. In addition to the expected application of unlearning within the intellectual and scientific communities, and the educational and workplace organizations, unlearning is also considered within the spiritual dimension and cyberspace.

Five examples of the diverse groups representative of the work addressing unlearning are summarized below – Marcia Conner (training and continuous learning), Peter Senge (pioneer and educator), Toke Paludan Moller (workplace consultant), Teemu Ari (blogspot author) and Hazrat Inayat Khan (spiritual leader).

“Things I know no longer so.” This is the sign on the “mental” attic that characterizes unlearning, as described by Marcia Conner in *Learn, Unlearn and Relearn*. Conner is currently managing director of Ageless Learner, a global advisory practice

supporting companies in the learning of and adaptation to new technologies, processes and information. The former senior manager of worldwide training at Microsoft and former editor in chief of Learning in the New Economy Magazine, Conner proposes that, while individuals do not have the physiological ability to hit the “delete” button and erase the existing neural pathways that have been created by learning, there is the ability to challenge one’s mindset through new skills, experiences, behaviors and knowledge.

“On the other side of right doing and wrong doing there is a field. I will meet you there. – Rumi” (Moller 2004) Toke Paludan Moller is the co-founder and CEO of InterChange, training and consulting company based in Denmark. In his article, *Unlearning: the Art of Letting Go*, Moller poses the question “how do we arrive at a higher level of learning? He believes the answer lies in part in the ability “to suspend [my] previous understandings for the sake of learning something new”. The resulting “chaos” of not knowing, the uncomfortable shifting of the mindset, as a disincentive to unlearning is an important contribution to the discussion made by Moller.

Suspension is also a descriptive term used in *Presence* (Senge, et al 2004). Senge refers to *Presence* as the prequel to his widely read *The Fifth Discipline* because it addresses the state of mind or state of spirit, necessary in order to work with the five disciplines and build a learning-oriented culture. “Most change initiatives that end up going nowhere don’t fail because they lack general visions and noble intentions. They fail because people can’t see the reality they face. Companies are unable to “see” the threats they face and the imperative to change.” (Senge, p. 29). As learning requires the ability to “see” the gaps between our anticipated objectives and the intended results of our actions, “seeing” is the first step in learning and unlearning as well. Senge states that *Presence*

“explores the process of continually suspending [your] habitual ways of seeing the world” as the first “basic gesture” of enhancing awareness. Suspending then leads to redirection which, as described by cognitive scientist Francisco Varela, is “turning our attention toward the source rather than the object.” (Senge p.42)

Seeing freshly starts with stopping our habitual ways of thinking and perceiving. According to Varela, developing the capacity for this sort of stopping includes “suspension, removing ourselves from the habitual stream (of thought).” Suspending does not require destroying our existing mental models of reality or ignoring them. Rather it entails hanging our assumptions in front of us. Suspension allows us to “see our seeing.” Until people can start to see their habitual ways of interpreting a situation, they can’t really step into a new awareness. (Senge, p. 45)

In practice, suspension requires patience and willingness not to impose preestablished frameworks or mental models on what we are seeing. If we can simply observe without forming conclusions as to what our observations mean and allow ourselves to sit with all the seemingly unrelated bits and pieces we see, fresh ways to understand a situation can eventually emerge. (Senge, p. 31)

“Boiling water” is the visualization used by blogspot author Teemu Ari to illustrate conceptual change, her preferred term for unlearning. While Moller describes unlearning as a process, Ari sees it as a change in perception that occurs in an instant. Her premise is that the way in which an individual has constructed “new” “knowledge in the past has already been shaped by one’s worldview. Therefore in order to unlearn, one must change the way in which one views the world. The property of water changes in an instant – when the temperature of the water reaches the boiling point of 100 degrees. Ari

believes that a conceptual boiling point in our understanding must be reached if unlearning is to occur.

“Spiritual attainment, from beginning to end, is unlearning what one has learnt. But how does one unlearn? ... One can do it by becoming wiser. The wiser one becomes, the more one is able to contradict one’s own ideas. In the wisest person, there is the willingness to submit to others.” This is the introduction to mental purification, the only method by which one can reach the spiritual goal, as stated in the Sufi Message of Hazrat Inayat Khan.

While differing in assessment and application, there appears to be at least one common thread in the discussion of unlearning among these five authors, and more broadly, with others studying this topic. Unlearning begins within the individual and requires the intent to change, personal work and courage.

Unlearning and Mindset/Worldview – A Reflection on the Relationship.

If learning is defined as the process whereby knowledge is created through the transformation of experience (Kolb), then unlearning must be triggered by an anomaly relating to that experience. Unlearning is the functional, and perhaps intentional discarding of obsolete or misleading knowledge (Hedberg, 1981). As Peter Drucker once remarked: Every organization has to prepare for the abandonment of everything it does.

Unlearning is a kind of learning that needs to occur if the result you want isn’t achieved even as it is executed perfectly. Unlearning and learning must be dynamic processes that evolve and the adaptive individual and adaptive learning organization must learn how to learn, re-learn and unlearn to make change and embrace a vision of the future. Unlearning techniques includes activities which result in letting go, giving away

any prior prejudices and habits, the expulsion of prior assumptions, and forgetting the old in order to get to a new cognitive mindset.

The mindset is the gatekeeper of the learning process in the brain. It must be transcended in order for new learning to set in, thus laying a new foundation for a new mindset. A person can have a particular "mindset" that is so strong in a specific outlook that they do not see other perspectives, even though they might hear them and believe they have been given consideration to those perspectives. This prevents looking at new options in a realistic sense.

To change or discard old worldviews and mindsets is a difficult and sometimes painful process. What drives some people to be more proficient at it than others and what are the mechanisms that trigger this process?

Few individuals within a culture can articulate its prevailing worldview and its embedded way of thinking because most absorb them unconsciously, by osmosis, while growing up. (Ackoff, 1999) Most of us are not aware of how we arrived at our present mindset or for that matter the existence of a prevailing worldview within ourselves. We were involuntarily conditioned to think like we do. Therefore, changing the mindset requires recognition that what we are doing is not working. The deciding and most important factor is the recognition of what we are doing and not that the environment or position we are in is wrong. Too often individuals and organizations blame the environmental position or status itself and not their inability to deal with the changing landscape as a reason for failure. This is the foremost indicator that a mindset change is needed and learning and unlearning must be instilled in either the individual or the organization.

For each of us as individuals, at any one time, cognitive schemas are a product of our own peculiar and at least partially unique histories. Every mindset represents a theory of what the world is like. And like every theory, a mindset exists in the form of a knowledge structure, that is, it consists of components as well as linkages among the components. Not unlike theories, mindsets evolve through an iterative process. The current mindset guides the collection and interpretation of new information. To the extent that this information is consistent with the current mindset, it reinforces that mindset. From time to time, however, some elements of the new information appear to be truly novel and inconsistent with the existing paradigm. In this event, we either reject the new information or forge a change in our mindset. The likelihood that our mindsets will undergo a change depends largely on how explicitly self-conscious we are of our current mindsets: the more hidden and subconscious the cognitive schema, the greater the likelihood of rigidity. (Govindarajan and Gupta, 2001)

If unlearning is to occur, techniques that support unlearning include letting go, giving away any prior prejudices and habits, the expulsion of prior assumptions, and forgetting the old in order to get to a new cognitive mindset.

The ability to unlearn first requires the skill of “seeing” that thing which needs to be let go of and changed and requires a predisposition and mindset to challenge those assumptions. Unlearning also requires the ability to reflect, to step beyond one’s individual role to see the whole. Unlearning is a process or a set of techniques which should result in a changing mindset in how you see and interact with the world. It should precede learning and in many cases happen at the same time as learning. Unlearning involves resetting and challenging any old assumptions, experience, ideals, values,

motives and beliefs that are used consciously or subconsciously in decision making and learning.

Unlearning techniques should be based on “double-loop,” or “generative” learning. Double loop learning leads to the questioning and modification of existing norms, procedures, policies and objectives. Double loop learning is concerned with the why and how to change an organization. Unlearning should be focused on the letting go of, or giving away or the expulsion of old ways of thinking and doing. Unlearning in individuals must start from a blank slate. “Forget everything you know,” is a key principle of unlearning. Unlearning is forgetting. Unlearning is about the rediscovery of new goals and responses by stepping out of habitual frames of reference and reexamining norms and assumptions (Hedberg 1981).

The reason for unlearning in organizations is not only to react to a changing environment but also to create new knowledge. Nonaka and Takeouchi’s approach is to make the tacit knowledge of the individuals explicit, and share both tacit and explicit knowledge throughout the organization. With this approach they see learning as an interaction of exogenous information structures and endogenous knowledge structures. Unlearning, they claim, takes place on the individual level by "breakdowns, which refers to an interruption of the employees' habitual, comfortable state of being. A sudden change in those habits forces the employees to reconsider their old basic attitudes toward the world" (ibid. p. 80). They also recommend induced breakdowns by management, such as challenging the goals and ambiguous visions to create a "creative tension" in the organization. (Gustavsson, 1999)

How Does Unlearning Occur? - Mechanisms for Unlearning

There have been some attempts at designing a systems approach to unlearning, however the research in the field is in its early phases. How does an individual or organization approach the process of unlearning?

Marcia Conner suggests applying the following four how-to steps:

Begin at the beginning. “What he knew already wasn’t as useful as what he needed to learn fresh.” To illustrate this point, Conner shares the story of a husband-wife team who were learning to kayak. The husband was a canoeist and was unable to set aside what he knew about canoeing. As a result, he found himself facing the bottom of the swimming pool more often than his wife, a complete novice.

Stay open. Unlearning requires the willingness to be open to other ways of thinking and doing. When an individual is open to a new view, prior learning is not de-valued, but is systematically “forgotten” because it becomes no longer useful.

Look for mirrors. The ability to unlearn is hinged to the ability of the individual to be reflective and introspective, as well as their ability to invite and consider the perception of others.

Examine your beliefs. Beliefs determine behavior. Unlearning therefore requires that we question and challenge our beliefs. When new beliefs are adopted, unlearning will occur and behavior will change.

An attempt at institutionalizing some form of unlearning was created in 1989 by Jack Welch, the CEO of General Electric who launched Work-Out, a problem-solving process modeled after a New England town meeting. He was determined to improve productivity while streamlining the company’s slow, cumbersome decision-making process. “Work-Out has a practical and an intellectual goal”, Welch told the

Harvard Business Review. “The practical goal is to get rid of thousands of bad habits accumulated since the creation of GE. The intellectual part begins by putting leaders of each business in front of hundreds or so of their people, eight to ten times a year, to let them hear what people think. We’re talking about redefining the relationship between boss and subordinate. I want to get to the point where people challenge their bosses every day.” (Garvan, p. 12)

Dennis Sherwood has studied organizations and was educated at the Universities of Cambridge, Yale and California, and is a Sloan Fellow, with distinction, of the London Business School. Looking at various organizations he established features of an unlearning organization, of which there are twelve characteristics.

1. *The day job-job doesn't get in the way.* Unlearning organizations make time for thinking, exploration, innovation. They don't let the pressures of the day-job stop this.
2. *"If it ain't broke, don't fix it" is not "the way we do things around here".* Unlearning organizations don't wait for things to break before they fix them. They are always searching for better ways of doing things, even if there is no explicit "problem" to solve.
3. *The only rule is "rules are for breaking".* Unlearning organizations recognize that rules, policies, procedures, processes, are artifacts of the time they were originated. All are constantly under review and those that remain fit-for-purpose are retained, those that have passed their sell-by-date are ditched.
4. *Negligence is distinguished from learning.* Unlearning organizations know that "failure" is a very broad term, and embraces many things. In particular, they distinguish between "negligence" (the deliberate departure from an agreed policy) and "learning" (what happens when an outcome differs from expectations). They do not condone the

former; nor do they penalize the latter.

5. *They Listen.* To each other, to the outside world. Actively. Bosses do not finish the sentences of their subordinates; peers use their ears more than their mouths.

6. *They Share.* Resources, information, people, risk. They operate in highly connected networks rather than hierarchical silos; nothing is "mine", for everything is "ours"; everyone is comfortable playing whatever roles are fit-for-purpose at the time.

7. *They say "yes" more than they say "no".* Go to a meeting. Take a blank sheet of paper; draw a vertical line down the middle. Label the left-hand column "yes"; the right-hand column "no". Each time you hear the word "yes", or equivalent positive remark, place a tick in the left-hand column; likewise for "no" and its surrogates. In an unlearning organization, you will have far more ticks on the left than the right.

8. *They don't rush to judge.* Unlearning organizations know when to evaluate ideas, and do this only when there is a full and well-balanced view. They do not shoot from the hip, or jerk from the knee.

9. *They have a wise approach to managing risk.* Unlearning organizations fully recognize that innovation is all about managing risk. They also know full well that in today's business climate - and especially tomorrow's - to maintain the status quo, though comfortable and familiar, is likely to be more risky than stepping wisely into the unknown. They don't expect every innovation to succeed, nor do they place any foolhardy bets.

10. *Their performance measures support innovation, rather than discourage it.*

Unlearning organizations have enhanced their portfolio of performance measures to ensure that they support, rather than inhibit, innovation. Even to the (unusual) extent of

measuring inputs (such as hours spent on idea generation) rather than outputs (number of ideas put into the suggestion box).

11. *They are very good at managing both the line and projects.*

"Did you hear about George?"

"No, I don't think so. What's going on?"

"He's been assigned to a 'special' project".

"Well, he's on the way out then."

That is a conversation you will not hear in an unlearning organization. Managing the line and managing projects exist easily side-by-side; being assigned to an innovation project is symbol of regard; and risk-taking is rewarded.

12. *They don't force closure.* Unlearning organizations know when to push for delivery (for those tasks which are well understood, and can successfully be planned with high certainty), and when not (for those tasks, like innovation, which are more open-ended and exploratory).

As discussed previously Peter Senge and his colleagues suggest a mechanism for unlearning as “Presencing” – the ability to transform will and the self towards deeper levels of learning. This is a process that individuals need to incorporate in order to change. Presencing allows individuals to move from “reactive learning” – where thinking is governed by established mental models and doing is governed by established habits of action – to deeper levels of learning where individuals get to the point where they have an increased level of awareness of the larger whole – both as it is and is it is evolving – and actions that increasingly become part of creating alternative futures. (Senge, p. 10-11). “Presencing” starts with suspending and then moves through a U

shaped figure that includes seven capacities including redirecting, letting go, letting come, crystallizing, prototyping, and institutionalizing. The three areas that incorporate these capacities include:

Sensing – transforming perception. It includes suspending, redirecting and the first stages of letting go.

Presencing – transforming will and self. It includes the advanced stage of letting go, and the starting phase of crystallizing.

Realizing – transforming action. It includes the envisioning what seeks to emerge, prototyping, and institutionalizing.

Although the concept of mindset applies to individuals as well as organizations, it is useful to draw a distinction between the two. When we talk about an individual's mindset, we are referring to how one human brain observes and interprets the signals it receives. But, given that organizations do not have an equivalent brain, what does it mean when we talk about an organization's mindset? The question of whether or not it makes sense to conceptualize an organization, as distinct from an individual, as having the capability to think has long been debated. The emerging and widely held view is that when a group of individuals is brought together, each with their own knowledge structure about a particular information environment, some kind of emergent collective knowledge structure is likely to exist.

This group-level representation of an information environment would act just like an individual's knowledge structure. It too functions as a mental template that when imposed on information environment gives it form and meaning, and in doing so serves

as a cognitive foundation for action. Common experience – confirmed by scientific research – tells us that, although organizations cannot be said to have a brain as such, they do behave as if there exists a collective cognitive paradigm, a paradigm that transcends that of any single individual – including the CEO (Govindarajan and Gupta, 2001).

Towards Building Organizational Learning/Unlearning model

Learning/unlearning is about making better decisions in choice situations. And better decisions result in improved performance. Of great importance is the ability to examine the causes of errors. For this purpose, a model should be developed that helps organizations to improve decision making and thereby the performance. Applying the model begins with clarifying the decision-making. The first step is to understand what the strategic decisions are and then ask these questions:

What are the expectations?

What are the underlying assumptions?

What information, knowledge, and understanding are being used in this decision?

How will we track the effectiveness of the implementation?

How can we make sure we gain insights into future decisions?

Learning and unlearning are purposeful acts. For an individual, learning is “having the capability to do something I couldn’t do before.” For an organization, learning is “having the capability of doing something we couldn’t do before.” As mentioned above, organizational paradigms integrate experience and tell employees how

to approach questions and problems. In addition, these paradigms control what questions can be asked and what answers are legitimate. At points in time, there are facts, problems, observations that are difficult to fit into the existing paradigm; these anomalies should be detected and worked on and studied. Invariably, some are eventually fitted into the scheme of the organizational paradigm.

This is the normal process in organizations: problems are solved, discoveries are made, and change in understanding occurs within the context of the existing paradigm (single-loop learning). When there is a qualitative change in the external and internal environment of the organization, the existing paradigm will not provide adequate answers to the challenging situation. It should be noted that there are two types of change that could take place: change that occurs as part of the process of "normal day-to-day operations" and that, which occurs in periods of transformational change. In the period of transformational change progress does not occur incrementally. Instead, change is triggered by a set of dilemmas. That is, a recognition of the existence of a problem which cannot be solved within the current worldview. Obviously, there are always a certain number of anomalies and dilemmas that stubbornly resist being reconciled to the existing paradigm. These accrete and become increasingly troublesome, until the authority of the paradigm itself comes into question (double-loop learning). Eventually, a new paradigm is promulgated which relates these anomalies to all other known observations in a new paradigm.

Therefore, the learning/unlearning model should be designed to support the organization in the following activities:

- Tracking decisions, i.e., surfacing and monitoring expected outcomes, and the validity of the assumptions on which the expectations are based.
- Identifying any significant differences between the performances observed and expected outcomes and assumptions.
- Determining the causes of mistaken expectations.
- Initiating changes in the system and its environment based on the diagnosis.
- Assess the impact of the prescribed changes.
- Collect lessons learned and make them easily accessible to all those authorized.
- In the organizational memory (system repository), replace the old information, knowledge and understanding with the new information, knowledge and understanding.

We believe that a model, such as the one explained above, will improve the organization's performance. The purpose of such a model is to help the organization Unlearning/Learning Organizations address the right problems and address them in a way that works. Specifically, the purpose is to do things that provide a measurable impact to the bottom line.

1 Paper presented at the 50th Annual Meeting of the International Society for the Systems Sciences (ISSS), July 2006

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APPENDIX F

DEFINITIONS OF ACKOFF'S FIVE CATEGORIES

Data	Data is raw. It simply exists and has no significance beyond its existence (in and of itself). It can exist in any form, usable or not. It does not have meaning of itself. In computer parlance, a spreadsheet generally starts out by holding data.
Information	Information is data that has been given meaning by way of relational connection. This "meaning" can be useful, but does not have to be. In computer parlance, a relational database makes information from the data stored within it.
Knowledge	Knowledge is the appropriate collection of information, such that it's intent is to be useful. Knowledge is a deterministic process. When someone "memorizes" information, then they have amassed knowledge. This knowledge has useful meaning to them, but it does not provide for, in and of itself, an integration such as would infer further knowledge. For example, elementary school children memorize, or amass knowledge of, the "times table". They can tell you that "2 x 2 = 4" because they have amassed that knowledge (it being included in the times table). But when asked what is "1267 x 300", they can not respond correctly because that entry is not in their times table. To correctly answer such a question requires a true cognitive and analytical ability that is only encompassed in the next level... understanding. In computer parlance, most of the applications we use (modeling, simulation, etc.) exercise some type of stored knowledge.

Understanding	<p>Understanding is an interpolative and probabilistic process. It is cognitive and analytical. It is the process by which I can take knowledge and synthesize new knowledge from the previously held knowledge. The difference between understanding and knowledge is the difference between "learning" and "memorizing". People who have understanding can undertake useful actions because they can synthesize new knowledge, or in some cases, at least new information, from what is previously known (and understood). That is, understanding can build upon currently held information, knowledge and understanding itself. In computer parlance, AI systems possess understanding in the sense that they are able to synthesize new knowledge from previously stored information and knowledge.</p>
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Wisdom	<p>Wisdom is an extrapolative and non-deterministic, non-probabilistic process. It calls upon all the previous levels of consciousness, and specifically upon special types of human programming (moral, ethical codes, etc.). It beckons to give us understanding about which there has previously been no understanding, and in doing so, goes far beyond understanding itself. It is the essence of philosophical probing. Unlike the previous four levels, it asks questions to which there is no (easily-achievable) answer, and in some cases, to which there can be no humanly known answer period. Wisdom is therefore, the process by which we also discern, or judge, between right and wrong, good and bad. I personally believe that computers do not have, and will never have the ability to possess wisdom. Wisdom is a uniquely human state, or as I see it, wisdom requires one to have a soul, for it resides as much in the heart as in the mind. And a soul is something machines will never possess.</p>
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APPENDIX G

PUBLIC RADIO STRATEGY MAP

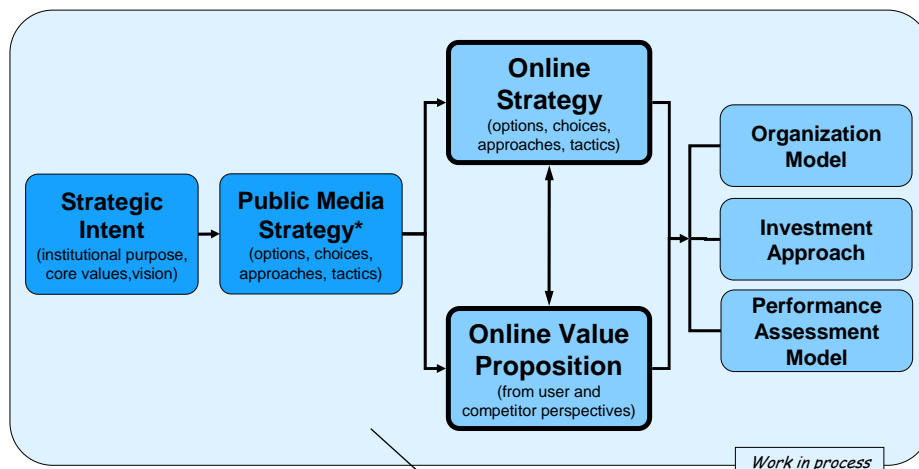
How clear are our online strategies?

Importance of strategic clarity in this context ...

- **Still evolving territory** -- all the more need to take and set bearings
 - Risk of chasing trends and picking up tools
 - Risk of taking an online direction misaligned with overall strategy for "institutional significance"
 - Risks of reacting, drifting and dissipating resources
- **Limited resources to invest and as yet unclear ROI** -- opportunity costs of mis-investing in the web
- **Dilemma of choice** -- nothing has choices like the web and too many choices can lead to poor choices
- **Limitations of scale and talent at the station level** -- risks of overreaching and poor execution for all to see

2

Scope of a fully integrated online strategy ...



"Integrated strategy" would be too fancy a phrase for what we're doing. I think we're all inching along, trying things. I like "experimental" better than "integrated strategy." An integrated strategy suggests that we really know what we're doing.

* The overall strategy for becoming a "significant institution" in SRG terms

3

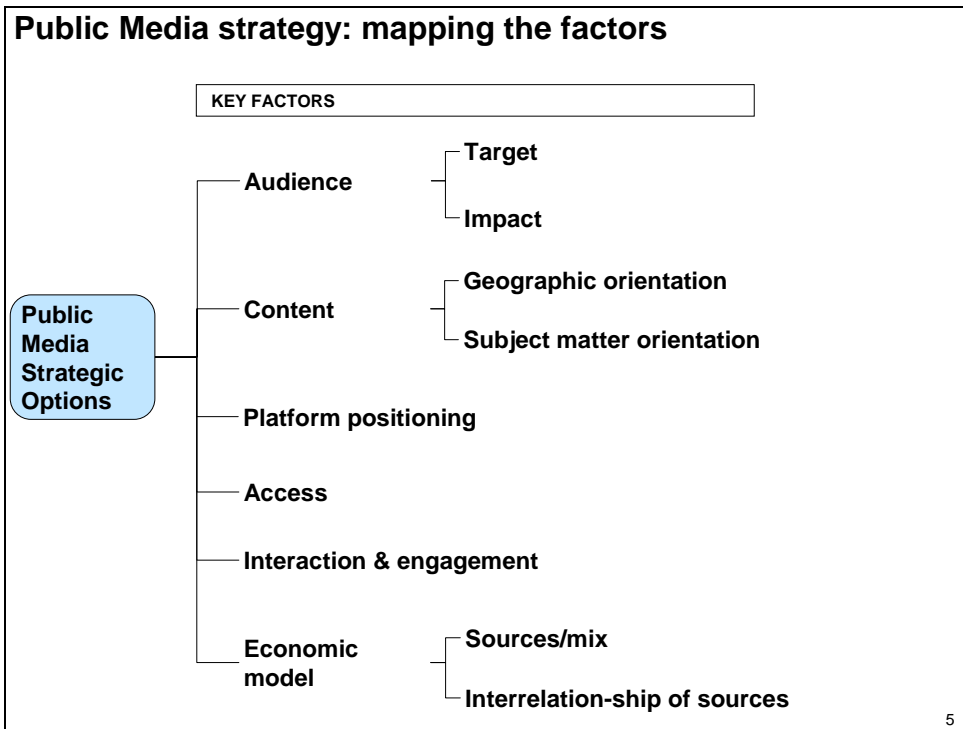
Strategic intent

A larger role for stations:

- Strategic position: trusted and sophisticated producers, selectors, and context setters for content of high quality and depth
- Build out capacities as authenticators and recommenders in an interactive community
- Leverage trust and reach to convene on the civic and cultural issues and interests of our time

--Station Resource Group

4



The Strategy map is designed to lay out all the factors and choices that exist in the public media (and online) strategic landscape. The map can be used by stations as:

- A diagnostic tool for determining where there are gaps or soft-spots in your existing strategy – whether implicit or explicit.
- A development tool for sorting through, pulling together and articulating a clear strategy from all the bits and pieces you’ve been working on
- A navigating tool to map what you’re learning as you experiment with multiple choices in search of which ones work (and which “branches” can be pruned)
- A means of communicating an online strategy and making clear the choices that have been made (and those that have been rejected, an important way of testing alignment)

It can be also be used collectively to:

- Provide a common language and reference points for comparing, diagnosing, sharing, discussing and debating public media and online strategies.
- Inventory and “classify” all the options/ideas being developed by stations and elsewhere.
- Help identify which nodes and choices are most critical or vexing -- and in need of more research and analysis.
- Provide a starting point for redefining and reconfiguring the critical factors and range of choices as the media environment changes further.

