

Organizing 2.0: Building Post-Modern Connectivity

Robert Agranoff
School of Public and Environmental Affairs
Indiana University – Bloomington, USA
agranoff@indiana.edu

Government and Public Administration Program
Instituto Universitario Ortega y Gasset, Madrid/
Institute for Public Governance and Management, ESADE Business School, Barcelona
gap.coordinacion@fog.es

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Today's organizing involves both structuring tasks and people and building conductive relationships. It thus involves modern and post-modern approaches that means bringing together the challenges of public problems and the work needed to solve them from both traditional and non-traditional perspectives. Goss (2001: 84) points to the importance of public agencies looking outward, looking to establish and sustain relationships. "A relationship organization is one where staff are capable of reciprocity." Clearly, as the role of the public sector shifts from direct government to the various tools of governance, for example by grants, contracts, regulations, and shared services, the importance of networks of relationships are key (Salamon 2002). It means that agents of government do more work outside of their organization structures. Nevertheless, the public management tradition is highly organizational. It remains to look deeply at post-modern forms of organization and management. This paper aims to add to that discussion by looking within a quintessential post-modern conductive organization.

What we are trying to capture here is not new but it is cutting edge. Collaborative public management has been around for some time (Agranoff and McGuire 2003; Alter and Hage 1993; Bardach 1998; Hanf and Scharpf 1978; Kickert, Klijn and Koppenjan 1997; Huxham and Vangen 2005). These and other works have underscored the need to develop processes that allow for forms of reciprocal operations, forms of exchange and coordination, sometimes even interactive operations. A more recent wave of research has tapped into the correlates of interactive management (Meier and O'Toole 2003; Chen and Graddy 2007; Herranz 2008) along with connections involving deliberative citizen participation processes and collaborative management (Bingham and O'Leary 2008; O'Leary and Bingham 2008). These works reflect the

interest and reality of post-modern organizing. Now some alternate theory to hierarchy must be developed to match this area of boundary crossing and relationship building.

This paper moves in that direction by identifying some key tenets of conductive organizing. It is based on an empirical study of a “network entity” a special school in Columbus, Ohio examined by the author in 2008. Initially, concepts of post-modernity and conductivity are introduced. That is followed by an overview of the case and its important post-modern features. Then the organizational processes suggested by the featured operations are examined. Finally, related theoretical implications of contemporary conductive organizing are introduced, prior to a theoretical conclusion.

Post-Modernism and Organizing

It is not exactly clear where the term “post-modern” originated from. Once source credits the Columbia University Spanish exile professor, Federico de Onis (1885-1966), to coin this as meaning an aesthetic and literary tendency that reacted against aspects of modern creativity (Kamen 2007: 379). As applied to organization studies post-modernism has taken on two distinct meanings, that of constructed interpretation and that of something beyond the modernizing nature of bureaucracy, with its rules, rigid structures, and internal operational precepts.

From the first, constructionist perspective it involves a look at organizations from the standpoint of language as a system of distinctions which are central to the process of explanations. This aspect of post-modern organizing takes issue with overarching “grand narratives” such as functionalism or Marxism, yet emphasizing the power/knowledge connection in understanding organizational dynamics. This approach also emphasizes the fluid and “hyper

real” nature of the contemporary world. Finally, post-modernists stress the use of narratives/fiction/rhetoric as central to the research project (Alvesson and Deetz 1996: 192).

Thus, the key to post-modernism involves how a series of organizational agents self-define their process and interaction experiences, how they identify and solve problems, and the real time changing nature of organizing is key.

The post-bureaucratic, open-boundaried flexible understanding of organizing as something beyond twentieth century organizing the latter refers to people like Weber (1947) who defined bureaucracy in his classic essay, written in the early 20th century as a hallmark of modernism as opposed to charismatic and traditional based models. As Figure 1 illustrates, Clegg (1990: 11) leads with the idea that post-modernism involves organizing around de-differentiated tasks. Yet there is much more; it involves opening boundaries of organizations, problem rather than rule-based orientation, with a methodological focus on what people do, how they discover ideas, and adapt different practices from elsewhere. To Clegg, this is post-Weberism where models of organizing are understood without orthodoxy, are likely to present a variety of approaches, without previous forms of standardization or “one best ways.” The organization is not a machine but an adaptive entity capable of being captured rhetorically and/or symbolically.

Clegg's Tenets of Modern/Post-modern Organization and Management

Modern organizing	Post-modern organizing
Differentiation of tasks	De-differentiation
Individual skill sets/tasks	Teams of quasi specialists/generalists
Boundaried organizations	Boundary-less organizing
Structured hierarchies	Open, networked organizing
Rules of operation	Problem-solving procedures
Meta-narratives, e.g. contingency determination by size, transactions costs	What agents actually do in accomplishing constitutive work
Rules of managing, e.g. span of control	Understanding of what is being managed
People at the top-managers know best	People and agencies in and around organizations also know what is in their interests
Policies and procedures manuals	Engagement in actions based on practical interest
Culturally constrained adaptation of management practices	Adaptation of practices from other cultures

Source: Clegg, 1990, pp. 10-13.

Post-modern organizations operate considerably “outside,” often to a similar degree of effort as they do “inside,” as they connectively engage other organizations or representatives of other organizations. This phenomenon has been captured by a number of observers but most cogently by Saint-Onge and Armstrong in their book *The Conductive Organization*, where the importance of partnerships is at the core:

The capability to effectively manage complex partnerships is growing in importance as organizations are reconfigured. Organizations are becoming more and more involved in complex value-creation networks, where the boundaries between one organization and another become blurred and functions are integrated. It’s becoming a critical organizational and leadership capability to be able to create and leverage participation in network-designed and –delivered solutions. Trust fosters this commitment and cements the network partnership. By forming value-creation networks focused on fulfilling customer requirements, true customer calibration can be accomplished.

Public agencies, as well as business, have become increasingly conducive through such partnerships. Obviously pitched to business, Saint-Onge and Armstrong define the conducive organization as “An organization that continuously generates and renews capabilities to achieve breakthrough performance by enhancing the quality and the flow of knowledge and by calibrating its strategy, culture, structure and systems to the needs of its customers and the marketplace” (179).

To Saint-Onge and Armstrong the conducive organization operates through a balanced organizational structure, working both horizontally as well as vertically. It has a cohesive culture, systems, structures and strategies that support a constructive leadership context. It seeks high quality internal and external relationships, feeding the creation, management and use of

knowledge. Its capabilities are enhanced as an inherent part of resolving issues and meeting challenges (Saint-Onge and Armstrong 2004: 16). Leadership is key in the conductive organization:

Leaders articulate the common objectives and values to which the network commits and around which it can coalesce. Control must be replaced by empowerment through self-initiation, with the network members being given the freedom to find the most appropriate route to achieve project goals.

The network will be held accountable for delivering its objectives. Leadership's responsibility is to ensure that systems and structures are in place that enable the members of the network to collaborate, learn, share knowledge, and execute their responsibilities. The network's output is the generation of capabilities (191).

Leaders then are responsible for generation of capacities, promoting the flow of knowledge within the organization and between, synchronization of the key organizations, examining mutual capabilities, and calibrating organizing structures to external needs.

Organizing 2.0: The Case of Metro

“Organizing 2.0” is now illustrated by looking at a new public agency, a networked science and math high school that has eschewed the lines and boxes of hierarchy. It is a quintessentially conductive agency. This allows us to then reveal many of the key emergent features of public agency management suggested by this 2.0 model.

Metro High School, Columbus, Ohio, is an accelerated science, technology, engineering and math (STEM) undertaking that is uniquely operated by a set of public and private agencies.

Metro's major learning partners include the Educational Council (superintendents of 16 of Franklin County's county school districts), Ohio State University (OSU), national and state Coalitions for Essential Schools (Knowledge Works in Ohio), and Battelle Corporation. In addition, other non-partners are involved: learning sites where students experience internships, projects, field placements and classes; the PAST Foundation that organizes research, field learning, and dissemination of STEM learning to the 16 school districts; contractual arrangements with OSU for student counseling; OSU leadership and educational resources; and such other community resources as industry/educator curricula taskforces and the use of OSU library as the Metro Library.

Metro's governance is by a combination of Educational Council (EC) agreement, upon the advice by Metropolitan Partnership Group (MPG), a steering group, and is administered by the Metro school administration and the Education Council staff. The school admits about 100 students for each class, by interview and lottery, ratioed and then apportioned by school population among the 16 districts. It operates on an accelerated basis and by subject mastery. Students must master the 18 subject-related credits required for Ohio high school graduation, normally in their first two years, after which they attend classes at OSU for credit. In addition to the network that undergirds the operation of the school, a community of students, teachers and parents are involved in many aspects of the school experience (Hunter, Agranoff, McGuire, Greenbaum, Morrison, Cohen and Liu 2008).

The development of Metro is an interesting story but of less direct concern than its structure here. Its formative events are, however, summarized and highlighted in Figure 2. These milestones fit well into the network developmental framework originally posited by Agranoff and McGuire (2001): activation, identifying and incorporating key persons and resources;

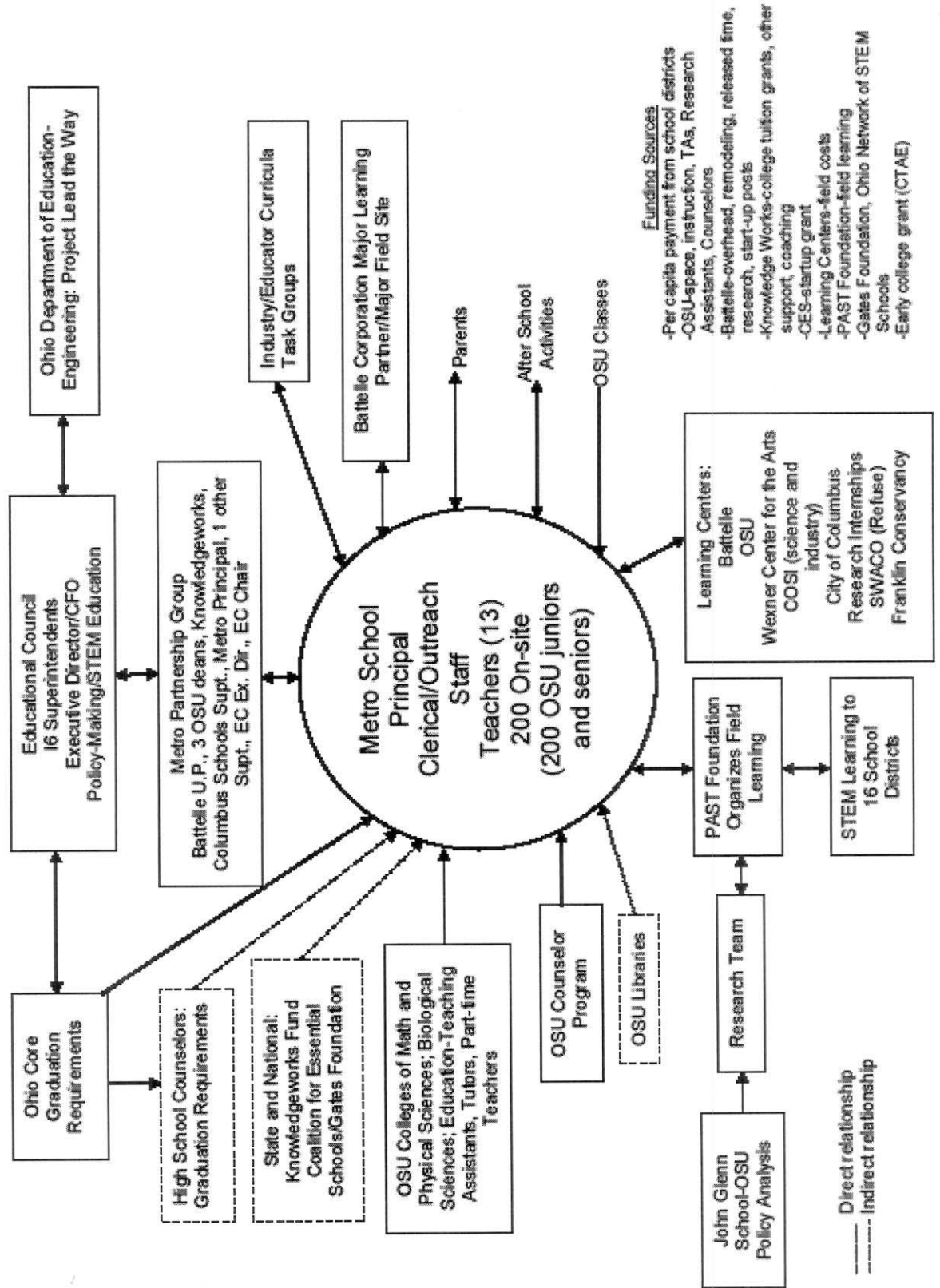
framing, or arranging and integrating a structure that will facilitate respective roles, rules, and network values; mobilizing, that is developing support for network processes by participants and external stakeholders; and, synthesizing, by creating an environment and enhancing conditions for favorable, productive interactions among participants. What is important here is that Metro's founders did not set out to create the network structure, but like many such entities, it began as a form of a loose partnership among Battelle, OSU, and the Educational Council. As the group proceeded, its core operating principles – 1) start small/stay small, 2) autonomy from a hierarchy/school district, and, 3) the small school principles of personalized/performance-based/development of habits of the mind. The high degree of conductivity involved the formation of Metro led the steering group toward a 2.0 organization, that is, a networked organizational structure.

Figure 2
Milestones in Metro's Development

- Initial contacts by Battelle, Ohio State University and small schools association staff.
- Development of a proposal for a math and science high school; \$200,000 grant from Gates Foundation/Coalition for Eventual Schools (CES).
- Retreat in Tacoma at CES meeting to work on the details of operation, governance, space, learning modes and early college. Leadership also designated.
- Educational Council, through its 16 superintendents agree to take on the small school as one of its projects.
- Space and build out, gathering of financial/donated resources by major partners, school district exchange principles/tax base support, and technical assistance commitments.
- Public announcement, mobilization of public official and community leadership support.
- Partnership steering group formed out of partner and leadership cadre.
- Curricular task forces comprised of teachers, industry representatives, university faculty, other experts design courses of study in all areas, from arts and humanities to biological and physical sciences.
- Enlistment of learning sites at area museums, laboratories, research centers, libraries, industry, and public agencies.
- Full-time faculty of 14 recruited, plus doctoral students and student teachers, tutors.
- School opens, freshman class of 100 enters representing on a district student population ratio basis, from all 16 school districts.
- Two years later, nearly 90 of the initial class begin classes as both high school juniors and Ohio State University students.
- Three years later, class of 100 enters, Metro at full complement of 400 students, 200 at its facility on the OSU campus, 200 at OSU.

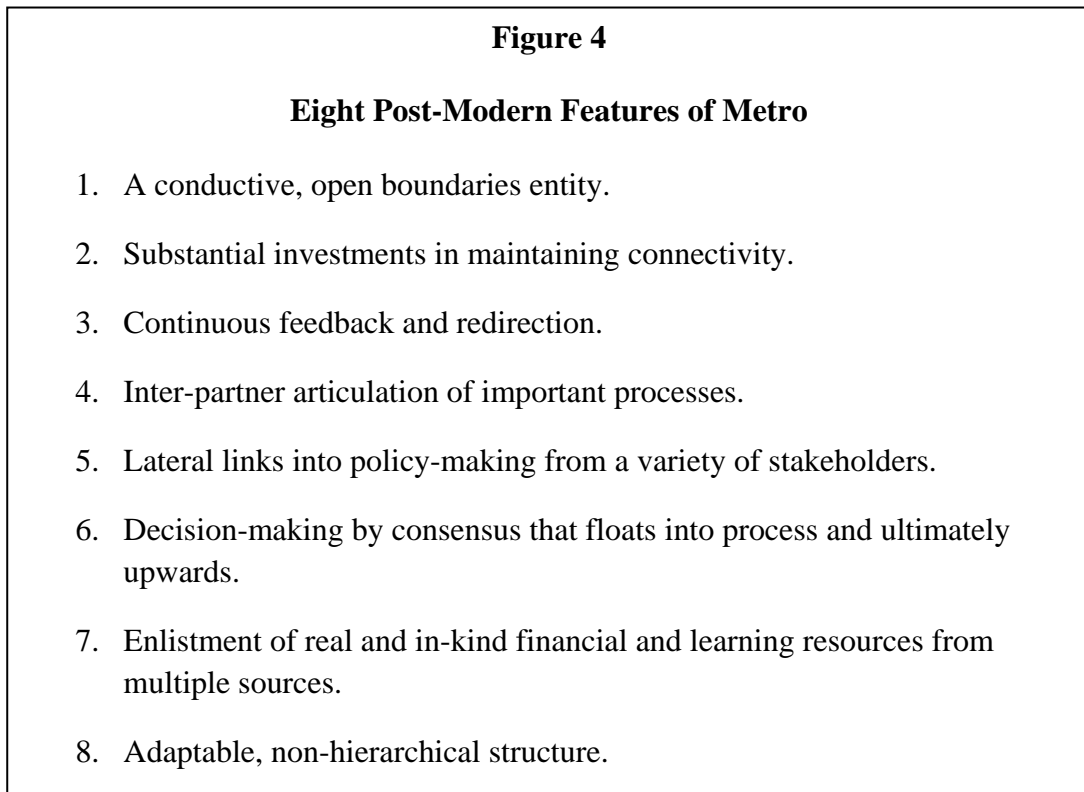
Source: Hunter, Agranoff, McGuire, Greenbaum, Morrison, Cohen and Liu 2008.

Figure 3
Metro-A Networked STEM School



The Metro structure depicted in Figure 3 does not look anything like a traditional hierarchy. It is represented by lines and a circle to represent networked inputs, which are represented by the boxes with organizations that conductively operate Metro. It is actually less complicated than it appears. Legally, Metro is not a school, but an entity that is officially a project of the Educational Council (EC), which is its official governing body. The EC ratifies official decisions normally worked out by the interagency Metropolitan Partnership Group which explores options and strategies and ultimately formulation of policies and holds the entity together. It is the most involved with school oversight as well, except for fiscal and budget matters which are handled by the EC executive director and staff. Moving counter clockwise on Figure 3 there is close interaction with the 16 school districts, the responsible entities for enforcing Ohio high school graduation requirements and career counseling for the Metro students they send. Then there is the consultation/coaching work of CES and Knowledge Works, a commitment of over \$1.1 million dollars during the first four years of the school's existence. OSU is also into Metro school for over \$1 million per year in space contributions, plus three colleges allocate and pay for around 10 graduate students who are assigned to Metro each year, an expenditure of about an additional million dollars. The other major partner, Battelle, a large research laboratory (at about 2:00 o'clock) provides seed money, is a major learning partner for STEM, and provides a major field learning site. Back to the other side, at about eight o'clock are agreements with OSU for student psychological counseling and for library use. The PAST foundation plays an important role in transmitting STEM and small school learning to the school districts, and has worked with a research team sponsored by the Battelle Center for Science and Math Education at OSU. Then there are the learning centers where students apply their

knowledge and build mastery portfolios that lead to credit. Also supporting the school's work are OSU classes, after school activities (journalism, engineering clubs), parent involvement, and a series of industry/educator curricular task forces.



The features that distinguish Metro as a post modern public organization are identified in Figure 4. First and foremost, it is a conductive organization. A STEM school like Metro does not have to be organized as a network; it could be a charter school, a special unit of local government, or some other special unit carved out as a school district. It adapted into the network model because it needed open boundaries to build working relationships and to access multiple learning resources and sites. The founders clearly wanted to be independent of any single school district, nor did they want to create a new school district, with an accompanying hierarchy, so as

to maximize organizational flexibility. This particular structure suited their need for high connectivity.

Second, it is an entity that invests heavily in human and material resources that maintain these connections, including key personnel to maintain collaborative, curricular and learning site linkages. For example, one Battelle professional is assigned to the school for linking in scientific learning experiences at Battelle laboratories and other sites and another professional education administrator is involved in school/curricular liaison with the state education agency, the 16 school districts and mixed source curricular task forces. Part of this connectivity also involves infrastructure maintenance through continuing partner dedication of key resources, e.g. space, equipment, access to programs and the like. But there is more. One would also have to point to heavy involvement of students and parents in developing the learning culture of the school, the outreach to the real world through student projects, and the attempt to “export” STEM learning to the 16 school districts as connective endeavors.

Third, Metro’s structure is designed for continuous feedback regarding its organizing, operations, achievements and culture. Input is regularly provided laterally by key partner representatives, learning site coordinators, consultants and coaches, as well as from administrators, teachers, students and parents. One very important operational example is the building of curricula by task groups that include experienced teachers, university professors, representatives of industry and government, and others. Learning modules are under constant revision, staying as close to the state of the art as possible.

Fourth, resource links are reinforced by participants who have learned that the “devil can be in the details.” Issues such as mastery portfolios, pedagogical methods, learning milestones, individual student pacing are articulated between Metro, learning sites, and the school districts.

While these, among other issues, bring heavy transaction costs across organizations, they are conductive maintenance costs that must be borne. These details require constant contact at the point of service, so to speak.

Fifth, operating and support personnel – teachers, learning site coordinators, parents, supporting associations, curricular taskforce members – all play a role in the development of operating policies and procedures. Together, they are attempting to find their way into a STEM education that will fit into Metro’s mastery model that is potentially exportable. Developmental work leads to the creation of operating knowledge that then finds its way to the administration and ultimately to the governance bodies. It is the post-modern process of exploration that leads to knowledge development that is neither top-down or bottom-up – but sort of sideways. After creation it works its way invariably into the administrative/governance structures rather than waiting for some form of hierarchical approval.

Sixth, more essential than a hierarchical structure are the partnership affiliations, in this case for STEM education by learning sites and the support of industry representatives. This structurally requires flexibility that allows for rapid input of information, knowledge and resource potential, and, the ability to make or defer decisions “on the fly,” so to speak. It is a decision-style followed a partnership-oriented mode, by consensus. Rather than adopting a long-range plan or plans, as issues arose they were approached on a singular basis.

Seventh, resources – financial support and learning – real dollars, organizational dollar commitments, and in-kind contributions are found wherever they may lie. Metro does not have a completely subvented budget from the 16 districts. A per capita dollar flow roughly equivalent to the annualized state aid formula is agreed upon, but this amount is generally between 20-25% of Metro’s costs. The remainder is from grants, donations and in kind contributions. Other

funding sources come and go, as do learning sites in the community. Resource issues are then forced to be collaborative. Financing is sort a problem-oriented “pay as you go and as you can” challenge. The summary in the lower right of Figure 3 lists major 2006-2008 multiple resource support.

Eighth, and finally, the structure is not only non-hierarchical, but it was built to suit the challenges as they were faced and to accommodate the collaborative nature of the undertaking. It is designed to promote partnering mindsets, instill trust, and a will to collaborate, as Saint-Onge and Armstrong (2004: 16) maintain. Instead of a table of organization the structure, with the exception of a formal (EC) and informal (partnership) governance structure, the Figure 3 depiction of partner, learning resource, and support relationships is more appropriate than that of a the hierarchical-oriented table of organization.

Metro continues to evolve structurally over time. Development and maintenance is through the interactive network of students, parents, teachers, school administrators, partner representatives, learning site representatives, and others. Ideas and practices are filtered into school and Ed Council administration, teacher meetings, student town hall meetings, and most important through the informal interactive dynamics of the extensive Metro network. The existence of these pieces, plus the activities of students, parents, and interactive learning resources makes it difficult to call Metro an organization in the Weberian or modern social science sense. Metro has no legal standing but only conceptually as a networked entity.

It is therefore difficult to label or identify Metro as an organization in the standard, hierarchical sense. It is an organized undertaking that has unusual public agency standing. Metro was initially made possible by the dedicated energies of key community leaders, particularly the former president of OSU and the CEO of Battelle, whose support and resource commitments

moved others to support the STEM concept plus small school concepts. Several identifiable levels now combine to constitute the Metro's network: the Educational Council, the Metro Partnership Group, Knowledge Works, the Metro principal, and Battelle. As the school continues operations, layers of teachers, learning site representatives, and support personnel from OSU have also become network participants. Metro's operations extend well beyond the walls and staff of the school, involving the active learning and support activities of many partner resources and learning centers throughout the Columbus metropolitan area. That is why in the modern sense, it is difficult to label it as an organization.

Emergent Organizational Features

An entity like Metro is a proven alternative to a single-organization hierarchy. Unlike a true hierarchy, Metro includes a multiagency governing body (Ed Council) and a governance and advisory structure (Metro Partnership Group and administrators), it is not divisionalized or specialized. The network is structured by overlays of students, parents, teachers, administrators, learning site representatives, and learning partners. Instead of command and control, Metro as a network features consensus-based decision models. Its participants do experience role differentiation yet in an overlapping fashion but operate with a fluid, participatory agreement-seeking orientation. Authority is in many places. Theoretically, this makes a conductive agency very different from a classic hierarchy. In this respect, an additional series of features, beyond the conductive Metro characteristics already identified, appear to be hallmarks of post-modern organizing. While suggested by the Metro experience, non-divisionalization appears to be existent in other post-modern organizing situations.

Like Metro, many post-modern organizations will be non-hierarchical to one degree or another with network-like highly flexible collaborarchies. The author's study of 14 networks (Agranoff 2007) defined them as self-managed bodies of officials who employed self-imposed rules that used consensus to develop collaborative capacity (Bardach 1998), instigating exchanges and developing cooperative dispositions and mutual understanding of the individuals trying to work together on common tasks (307). The Metro study demonstrates that the principle of "soft guidance" by the multiple focal nodes is an accurate description of the way decisions are made and actions are taken (Windhoff-Hentier 1992). Such guidance is the network equivalent to direct supervision in hierarchical organizations. The most central administrators – the Metro principal and the CEO of the Ed Council – apparently are significant for information flow and planning, but they do not dominate the operations of the network. The principal is indeed the center of the Metro universe, but there is substantial evidence from previous network research that suggests a focal "hub" or hubs can be critical to network success (Meier and O'Toole 2003). Although the classical approach views networks as being flat, self-organizing, completely interdependent entities, it has been found that, in practice, a network center is not uncommon. Case studies of community mental health networks, for example, demonstrate that the effectiveness of the networks was based in part on the extent to which the network was coordinated centrally through a core agency (Provan and Milward 1995). At Metro, the principal appears to be that hub, although other nodes have been, and remain, indispensable to Metro's operation.-

Another principle of post-modern organizing appears to be legal authority by transferred governance. In order to avoid a state of complete anarchy, partnerships, networks and related collaborative bodies need to have some body of legitimate authority and rule-making. Given

their interorganizational nature, legally-based hierarchical executive authority is not a good fit. Rather, these bodies are more comfortable with the transformation of partial authority from the hierarchical organizations they represent to a collegial body that takes in input from “below,” seeks consensus and decides (McGuire 2002). The Metro EC operates very much in this fashion. It has some overlapping representation on the Partnership Group, including the key superintendent (who sends almost 60% of the students) but listens on most policy issues to the Partnership Group, which in turn overlaps with the administration, which relies on multiple lateral inputs. In a sense, governance is based in the ability of key partners to shift normally minor, but sometimes substantial portions of their hierarchical authority to the collaborative structure. (It will come as no surprise that the most difficult entity to yield or shift authority proved to be OSU.)

It is also evident from the Metro experience that they are led and staffed by professionalized epistemic communities that have a high propensity to collaborate (McGuire 2009). This type of community is comprised of professionals from different disciplines who share common outlooks and possess similar solution orientations, share normative and principled beliefs which can provide a value-based rationale for social action (Haas 1992: 3). The Metro group came together this way from high school educators, higher education professors, industry researchers, business employers, and small school advocates. As they worked together for a reasonable period of time they evolved into a community of practice. Wenger (2000) defines such entities as self-organizing systems that share the capacity to create and use knowledge through informal learning and mutual engagement. Indeed, the principles of engagement, learning and knowledge development on an interdisciplinary basis is a hallmark of the emergent organizing experience.

Another experience is that planning and organizing is problem-focused. It normally is flexible and springs from multi-party agreements that are interactive, discursive, and sequential. The Metro network was built piece by piece, not as an externally-created, finely-tuned machine that was completely ready to operate from the outset with a five-year plan. Just as it did during its formation, the Metro network meets its challenges as they emerge, almost on a case-by-case, one-by-one basis. For example, it did not have a four-year high school graduation template for two years, but took on each issue as it needed to be faced. Physical education was not addressed until almost the third year. Algebra II was taught before Algebra I in the first year because of a need to link students with projects in the field. Social studies teachers were added only in the second year. Metro has operated without a uniform discipline code, but relies on the codes of the student's home districts (which, incidentally, create occasional inconsistency problems). As needs arise, plans follow to meet a particular challenge. This non-linear mode appears to be characteristic of flexible organizing.

In a similar fashion to most conductive organizations, Metro's operations are complex, with series upon series of multi-networked interactions and transactions. A succession sequence of problem emergence/problem delay/problem solution at Metro demonstrates how adaptive structures need to anticipate challenges but often delay solving them until they have put together the multiple agreements and resources required for earlier, more pressing concerns. The space issue at Metro is an example. Metro first had to find a space, with the prime cooperation of Battelle and OSU. When the students arrived, Metro had to find learning sites outside of the school. As that the first class was about to enter OSU, a new space issue arose, where classes will be held besides at OSU because the original site is limited to 200 students. Like many other

networks, small and large problems are solved as they need to be faced, by collaborative agreement, not when they are uncovered (Agranoff 2007).

In turn, the key network strategic interactions are regularized/patterned into sets of joint strategies that are the equivalent to interdepartmental agreements or decisions that affect operations in bureaucracies. They are approached as negotiations-adjustments-accommodations-decisions by partners between major participating organizations. For example, annually the EC receives input and decides on fixed rate to “levy” each school district per pupil for the coming year. The school districts, upon the advice of the Partnership Group, have agreed to accredit student portfolios (individually, not group prepared) as credit equivalents. The school districts, through these superintendents, resisted paying for low-income school lunches, special education services, and early college tuition, so the school has absorbed these costs in the first two situations and received a grant for the third. Each of these major issues became operating policies, but are built one-by-one between organizations, are consensus based and not mandated, and form one important set of operational “rubrics.”

An additional key set of organizational concerns is at the core of interorganizational conductivity, that is the constant demand for more detailed, articulation-based interoperability (Jenkins 2006: 321) must be put into collaborative management. This practice is a means of bridging organizations/operations at a more detailed level. It has been defined as “reciprocal communication and accommodation in order to reach interactive operating policy and programming (Agranoff and McGuire, in progress). The Metro process of awarding each student credit for work done in the classroom and for in the field or laboratory fits this process, as the Metro curriculum coordinator and/or principal and a school district professional look at records and portfolios. It involves considerably more than the standard “bargaining and negotiation”

often used in the literature. The process follows a sequence something like this: joint agreement on core principles, interactive planning, exploration/mistakes/failure to launch, reaching key understandings, program articulation routines, reciprocal operations, and feedback and correction. Interoperability is a quintessential boundary spanning activity that will draw increasing administrative interest as post-modern organizations accelerate their collaborative stances.

Moving more externally, post-modern organizations like the Metro network faces multiple performance accountability points, to the partners, to external stakeholders in industry and business, to the scientific community, to public agencies, to the small schools movement, to students and to their families. Esmark (2007: 283, 287, 293-94) suggests that there are three challenges in network accountability. First, networks need to be considered as representative forums, to be inclusive in scope and be concerned with relevant stakeholders outside of the formal membership of the network. Second, networks need to institutionalize procedures of publically assuming responsibility and giving explanations according to basic standards of communication to the stakeholders or moral constituency outside of the network. Third, in networks recognition must be given internally to different types of mandates or sanctions from representative organizations at the same time that they pay attention to non-organized stakeholders. This is a difficult order for multiorganizational entities, and it makes the performance quotient quite difficult. As Robert Behn (2001: 77) concludes, collaborative operations mean that “the one-bill, one policy, one organization, one accountability holdee principle doesn’t work for performance.”

Finally, any multiple partner, networked entity like Metro will have to work considerably hard to build its own legitimacy. It will rarely have the kind of legislative authorization that

modern bureaucracies have experienced to enable their existence. Even with a legal charter, the networked entity will still have to prove their mettle. How a network or collaborative structure grows and evolves into public acceptance is important (Human and Provan 2000). Maintaining the legitimacy of the Metro network as a recognizable identity, particularly to outsiders, is one mechanism for growth and acceptance. Building legitimacy also means that internal network participants need to find public value in their membership and continue to provide resources and support (Moore 1995). A great deal of collaborative capacity was built among the major partners, but the social network analyses and the interviews with teachers and parents reveal a marked gap in the degree of connectivity with the Learning Partners (Hunter, et. al 2008). Metro is now finding a way for these potentially influential entities to become viable participants in information sharing and planning. This will remain a critical component of Metro's growth and adaptation to cement its legitimacy.

Beyond Metro's Post-Modern Structure

There is clearly much more that can be said about how connective entities like Metro build post-modern organizing. The entire field of "governance" implies that there is more process than that of government (Kooiman 2004). In a look at how civic engagement links with opening up of more traditional (or modern) government structures, Agranoff (2008) demonstrates how U.S. federal, state and local government agencies engage broadly with a host of connective means: contracts, grants, partnerships, task groups, advisory bodies, public-private corporations, research consortia, technical assistance, joint serving, interagency agreements, exchange of technology and many other lateral means of organization to organization

conductivity. Of course, citizen involvement in government can “offer spaces in which managers and citizens can engage together in active thinking...explore different ways of doing things, (and) propose solutions” (Goss 2001: 144). In many ways these resemble what Booher (2008: 113) identifies as complex adaptive networks, where agents representing different agencies and organizations interact dynamically and nonlinearly in an open system so as to generate novelty and emergent adaptive patterns.

The new public management (NPM) movement is in many ways contributory to the idea of post-modern organizing. Generally imprinted from business, while NPM focuses partially on inside operations, its implications are highly conducive. It includes three major foci: 1) a shift from government to governance, invoking a host of nongovernmental organizations in the work of government; 2) from direct service provision or “rowing” to enabling outside competition by government “steering;” and, 3) refocusing government from itself to the “customer” and “user” of services (Snape 2004: 63). Among the instruments of NPM are services privatization, increased managerial flexibility and deregulation, competitive bidding for services delivery by government and non-government agencies, performance-based contracting, citizen input into management decisions, off-budget municipal/or government companies that are self-sustaining, instituting benchmarks of performance, performance evaluation, imposition of national minimum standards of service, internal devolution of power/decision-making to services departments, and strategic (cross-entity) local management. In many ways NPM serves to up the conductivity quotient, so to speak, and drive public hierarchies outward.

Finally, it is important to add the potential role of digital tools. Online “communities” representing both individuals and organizations are an emergent means of contact with public organizations. In the same way that public officials can take their messages to varieties of people

and organizations by internet people and organizations can take their message to government. Tapscott (2009: 262) suggest that people who have grown up digital expect to collaborate with politicians. “They want to be involved directly: to interact with them, contribute ideas, scrutinize their actions, work to catalyze initiatives not just during elections but as they govern.” He provides a series mechanisms through which such interaction will come about (262-264):

- Internet based dialogue, online discussion, and feedback mechanisms.
- Web 2.0 discussion of problems/issues communities.
- An online “jam” or massive online discussion that develops actions out of a multiplicity of perspectives and expertise.
- E-petitions, a platform for constituents to influence policy directions.
- Virtual town hall meetings, time-limited online discussions between elected officials and constituents.
- Online citizen panels, randomly chosen citizens serve as policy advisors.
- Deliberative polling, combining small group discussions with random sampling.
- Virtual question periods, making officials available for online question-and-answer sessions.
- Scenario planning, projecting future policy by dealing with alternatives using simulation and modeling software.

While it is perhaps too early to tell how digital connection will impact the tenets of modern organizing – hierarchy, operational rule, authority, layers of departments – it is clear that it will change the rules and practices of conductivity.

Conclusions

This case and discussion hardly captures the be all and end all of post-modern organizing but hopefully will open a dialogue for examining emergent models of organization and management. It appears that a plethora of cases are needed, for in the spirit of the “new science” the field of inquiry must focus on holistic models rather than isolated parts. Only complete system looks will bring out the connections necessary to understand contemporary connectivity. This is why studying such whole cases as Metro are important, when one can observe connective practices in relationship to one another.

Despite the call for forms of holism key relationships derived from looking at whole systems can inform us about contemporary public management. The emphasis on connectivity is not necessarily advanced as new (Chrislip and Larson 1994; Pasternak and Viscio 1998; Campbell and Gould 1999) but formulation of new modes of managing conductivity must be generalized from these building blocks.

One clear issue is that horizontal and vertical management stand side by side. For some decades, traditional command and control hierarchies inverted their pyramids and allowed for subunit accountability and responsiveness. Authority was moved downward and outward. It amounted to another form of transferred vertical management. A horizontal approach involves a series of external commitments, on a dynamic and flexible basis, based on mutual value created, repetitive configuring of capabilities, open to stakeholders, and leveraging alliances (Saint-Onge and Armstrong 2004: 192). It does not mean that vertical management has gone away, but that horizontal management presents a critical overlay on the work of public managers.

Having recognized the essential nature of horizontal or conductive management as it has moved into the core of activity for the past decade or two, the field must learn from experiences

like those of Metro about how relationships become the building blocks of this form of management. We have offered several here as a start: de-differentiated structuring, self-managed flexible collaboarchy, governance by transferred authority, leadership by learning communities of like-minded participants, problem/obstacle oriented planning, adaptive interactions and transactions, interoperable procedures, multiple points of accountability, and the need to foster entity legitimacy. Other cases may well reveal other and/or additional realities to the task of going beyond the usual statements about the centrality of collaborative management or the importance of bargaining and negotiation.

In the final analysis that is what the exercise should be all about. It is interesting and heuristic to pull apart seemingly uniquely structured entities like Metro. As scholars of networks/collaborative management it provided for a unique opportunity to explain to its users what they were all about. As the contract management scholars (Brown, Potoski, VanSlyke 2006) have demonstrated, all students of post-modern conductive public management must be in it to seek more fundamental explanations. This is the way the real world now works around us. Nothing less should be the goal.

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