Human Service Organizational Technology:
Improving Understanding and Advancing Research

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Within organizational studies, scholars use the concept of ‘technology’ to refer to the work done within organization. While common usage of the term now denotes new innovations in computer systems, hand-held organizing tools, or web-based innovations, organizational theory highlights the importance of a many different tools, techniques and actions in carrying out the central work of organizations. Organizational technology is the process used to transform inputs into outputs (Daft 2006; Goodman and Sproull 1990; Scott 1981). Inputs, often conceptualized as raw materials, can be people, other living things, material resources, objects, or symbols. Similarly, outputs can take many different forms. If organizations are recognized as systems for doing work, organizational technology is their central, defining characteristic (Perrow, 1967; Hulin and Roznowski 1985).

Within manufacturing organizations, it is not difficult to specify the core technology. Raw materials can be seen, measured and analyzed. Tasks important in the technological process can be standardized and evaluated. In fact, within private-industry, the whole field of operations management provides concepts and tools, such as supply-chains and project management, to analyze and improve an organization’s technological processes. In contrast, there is a surprising dearth of attention to defining, discussing and understanding the technology of human service organizations. In part, this is because this process is much more difficult to define and enumerate. The primary raw materials – clients – have diverse characteristics and motivations. The programs and tasks important in the transformation process are changeable, often requiring professional judgments that are difficult to predict or standardize. Program execution often require many different elements be dealt with simultaneously (Scott 1981). In fact, some argue that human service organizations – such as mental health clinics, child care centers, welfare-to-work agencies – employ technologies that are inherently indeterminate,
ambiguous, and complex (Hasenfeld & English, 1974; Hasenfeld, 1983; Weaver, 2000; Nuehring 1978; Savage 1987).

There is, of course, important variation among the technology of such human service organizations (Hasenfeld 1972). Some technologies are intent on processing people. In these organizations, work focuses on controlling access to a range of services, such as what occurs in university admissions offices, credit bureaus, or welfare organizations (Hasenfeld 1978; Prottas 1979). Core tasks center on classifying clients, linking them with external resources, and disposing of cases; as a result, the duration of the intervention tends to be fairly short. Other human service organizations employ technologies focused on changing people. The tasks of these organizations, such as mental health clinics, child care centers, or schools, provide treatment, education, or socialization to alter the physical, psychological, social, or cultural attributes of clients (Goffman 1959; Vinter 1963; Willis 1977). Because staff play central roles developing and deploying treatment, moral categorization of clients may determine the types of services they receive (Roth 1971; Pesso 1978; Hasenfeld 1992; Schneider and Ingram 1993; Soss et al. 2001). In both settings, those with “people processing” and “people changing” technologies, staff interactions with clients are central to program implementation.

One key question of scholars interested in better understanding organizational technology is its relationships to structure (Fry 1982; Hickson, Pugh, and Pheysey 1969; Lawrence and Lorsch 1986; Mohr 1971; Savage 1987; Shrader, Lincoln, and Hoffman 1989; Barlay, 1990; Glisson 1978, 1992; Perrow, 1967; Scott 1981). Organizational structure is the coordination mechanism that enabling work to be done (Perrow, 1967; Scott, 1981). Originally, based on Weber’s bureaucratic theory, structure was conceptualized as that which created specialization, standardization of tasks, formalization, centralization (Pugh et al. 1968). Organizational
theorists also see organizational mission, hierarchy, departmental arrangements, and intra-organizational task forces as structural elements. Many functional management areas, such as financial management practices, human resources management, facilities, and evaluation, also create the structure supporting program technology (Scott 1981).

Contingency theory suggests a predictable relationship should exist between an organization’s technology and structure, and considerable research explores this relationship (Glisson, 1992; Lawrence & Lorch 1986; Perrow, 1967; Scott 1981). More variable and ambiguous processes demand more flexible structures than routine and concrete practices. However, while some research argues structural characteristics predict technological variation, others contend that variations in core technologies predict structural forms and empirical investigations reveal ambiguity in how to understand the relationship between each (Adler and Borys 1996; Barley 1986; Mohr 1971; Glisson, 1992). In the end, this stream of research is unable to explain why similar organizational technologies could be carried out in difficult structures or why similar structures often surround distinct technologies.

This intellectual impasse has not stopped the development of a rich and vibrant field focused on understanding the technology of private industry. In fact, in this arena, there is growing attention to the “duality of technology.” (Orlikowski, 1992). Rather than being the product or cause of structure, some scholars direct our attention to organizational technology that is simultaneously produced by and constrained by human action (Barley 1990; Weick 1990; Orlikowski 1992; Roberts and Grabowski 1999; Pozzebon 2004; Yanow). To explore this idea, they engage with the work of social theorists (most notably Giddens 1984, 1990; and Latour 2005) who grapple with the relationships between macro-structures and human agency.
In this chapter, I explore the implication of this line of scholarship for the work of human service organizations. I do so for theoretical and practical reasons. As others have noted (Borden 1992; Emirbaye and Williams 2005; Rino 1985), our understanding of social welfare administration can benefit from a more deep engagement with sophisticated theories. The theory which informs this analysis is particularly relevant to social welfare for it grapples with understanding how human activity – insight, innovation, meaning, leadership – creates and is constrained by larger, structural forces. Research with front-line human service professionals or managers reveal considerable insight and energy being spent on program delivery and refinement. Yet at the same time, their actions are often hindered by larger structural forces such as organizational rules or public policy. How can this theory help us better understand this empirical reality?

Practically, it also is essential for human service professionals to better understand the work within our organizations. Although technology is often seen as a “black box,” there is much to be gained from refining our conceptual understandings. In human service organizations, program refinement is too often driven by external funder requirements rather than close analysis by program staff. Letts and colleagues (1999) describe this as the dearth of program capacity within nonprofit organizations. Yet, the capacity to understand, monitor and refine program elements is an important dimension of organizational effectiveness (Sowa, Selden, and Sandfort 2004). How can a theoretically-informed understanding of technology improve the programmatic capacity of human service organizations?

**Modeling Program Technology**

A number of characteristics differentiate the technology of human service agencies from other organizations. For one, many times the treatment methods and intervention techniques
being used are not based upon scientific understandings of the presenting problem (Rossi 1978). In some instances, this is because there is little definitive research about interventions. Other times, there is resistance to incorporating evidence based practice into frontline work (Gira, Kessler, and Poertner 2004). The knowledge staff and managers develop from years of day-to-day service delivery, providing counseling, educating children, verifying eligibility for welfare programs, often have incredible validity because of its direct relevance to the tasks at hand. Finally, funders and others in the external environment may pressure agencies to adopt techniques and tools used by other organizations whether or not they are based upon documented evidence of effectiveness (Zucker 1987; DiMaggio and Powell 1991).

Secondly, there is considerable complexity when working primarily with human beings who are the raw materials of an organization’s process (Hasenfeld, 1974, 1983). Because people have distinct attitudes, motivations, and goals, they rarely passively accept the imposition of an organization’s treatment protocol. Instead, human service technology is often negotiated through day-to-day interactions between front-line workers and clients. Organizational staff and clients can experience conflicting goals, unequal knowledge, and contested control (Rosengren and Lefton 1970; Hasenfeld 1978; Lipsky 1980; Handler 1992; Meyers, Glaser et al. 1998; Sandfort, Kalil, and Gottschali 1999). Yet, paradoxically, both parties are mutually dependent upon each other. Staff depend upon clients to focus their work efforts, provide feedback, and respond to offered treatments. Clients depend upon staff to provide the services they are seeking.

Finally, in private businesses, slippages in organizational technology decrease productivity and efficiency, both central concerns of management. In contrast, human service managers’ attention is often are focused on securing and maintain the resources necessary to carry out programs (Letts, Ryan, and Grossman 1999; Meyer and Rowan 1977). With the
increased role of government as a funder of many human service organizations, the process of securing and managing resources can become extraordinarily complex. Each funding stream carries with it rules, reporting requirements, and fiscal constraints that must be reconciled and managed (Gronbjerg 1993; Smith 2005). Managers must grapple with the constant tension between deepening program expertise and developing new programming ideas to capture private funders’ interest. Yet, managers must work against these forces to assure their limited resources are applied in ways that bolster program effectiveness to focus on strategies most likely to change clients’ circumstances.

As noted earlier, operations management within business has developed many tools to manage organizational technology. While the unique characteristics of human service technology make direct application of many operations management tools fraught with difficulty (Jaskyte and Dressler 2005; Savage 1987), a simple project management tool, process diagrams, can help human service managers to understand and monitor basic process elements in their programs. These diagrams simply create visual representations that capture the steps and sequences involved in program delivery. Figure 1 illustrates the use of such process diagrams in two types of human service organizations – welfare-to-work providers and early childhood education programs. Unlike private business, public policy often mandates key elements of program delivery in human service organizations, to varying extents. At the time I conducted research in these organizations, welfare-to-work agencies were largely people processing organizations. Public policy mandated contractors to focus on finding jobs for welfare recipients through a ‘Work First’ model, rather than providing education or training (Brown 1997).

According to state policy, a successful outcome for the contractors was placing clients in minimum wage employment for at least twenty hours a week. In contrast, preschool providers provided a more fundamental people changing technology, supporting four-year-old social and emotional development so children could succeed in school. Public policy encouraged high-quality care and education, and assured the provision of additional health and family support services. Figure 1 represents the program mandates of both the welfare-to-work and early childhood education policies. As such, they illustrate how program implementation is conceptualized by policy makers.

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Program requirements specify how a client enters each organizational for service. In the welfare-to-work example, client referrals are made from a county welfare office. In the early childhood example, children are enrolled at the beginning of the program year, on a first-come, first-serve basis. The visual diagrams also denote the various program tasks mandated by policy directives. In welfare-to-work, rules require all organizations do orientation and “job search support” to encourage those who can get work to find it. For those who aren’t successful, they must have access to more focused program elements called “job readiness activities” that presumably allow skill deficiencies to be addressed. If clients do not comply with the 20 hour-a-week requirement of engagement, they will be referred back to the county welfare office for punitive action. In early childhood education, the core program element is classroom instruction, although public policy requires it be supplemented by child assessment, health services and family support.
Such diagrams can be used to model the way policy makers assume program directives will be carried out. Yet, they also can document the variations that exist in practice, as diverse program operators interpret these directives and carrying them out within their own organizational contexts. They can shine light into the black box of human service technology and reveal variation that is important, for program delivery, policy implementation and research. For example, Figures 2 illustrates the implementation of welfare-to-work programming in three organizations clustered in two Michigan counties. Figure 3 illustrates the program technology in three other organizations providing the early childhood education in New York state. Both are representative of the technological variation found across the multiple sites examined in both of these studies. While organizations were implementing the programs under the same policy mandates (those illustrated in Figure 1), each interpreted the mandates differently.

In the welfare-to-work example, organizations were given latitude to develop their own approach to ‘work first’ and evaluated according to their performance, measured by the numbers of clients they moved into employment. A statewide study of 100 welfare contractors system at the time, found there were four distinct models being used (Seefeldt, Sandfort et al. 1998; Sandfort 2000). When interviewed in that study, managers in all three organizations illustrated in Figure 2 claimed their agency was operating the same model, a “job seeking support” approach. However, actual observation of daily operations revealed significant variation in the technological process (Sandfort 2003). In early childhood education, federal Head Start and state preschool regulations do not encourage experimentation; policy dictated more specific program elements including child assessments, health and dental services, and family support

\footnote{2See Sandfort (1997) and Selden & Sowa (2004) for more details about each research project.}
classes or case work. As Figure 3 illustrates, however, there still was significant variation in the technological process across the three organizations highlighted.

These examples support assertions that human service technology is inherent indeterminate. Contested goals, insufficient technical knowledge, and resistant clients leads organizations to develop various processes. Staff develop program interventions that might not be related to achieving desired policy outcomes. Yet, they somehow are logical from the vantage point of the front-lines, among staff in both people processing and people changing organizations. In fact, many interesting questions are raised by these examples. What contributes to the significant differences between the programmatic directives of policy and local service technologies? How can we understand the variation among local programs? If interventions are only partially based on scientific knowledge, how is human service technology developed and sustained? How do staff develop practices for dealing with clients who are important forces in shaping the consequences of the program? To answer such questions, we must look to the realm of social theory. If we are interested in building more programmatic capacity, in improving the connections between the work of human service organizations and desired societal goals, we must explore them.

Enhancing our Theoretical Understanding of Human Service Technologies

As alluded to earlier, most initial research about human service organizational technology conceptualized it as objective force that would determine or be determined by other organizational attributes, such as structure or the environment (Hasenfeld 1972; Hage and Aiken 1974; Glisson 1978; Savage 1987). Another stream of research focused upon individual discretion and the institutional contexts important to front-line, “street level bureaucrats.” (Roth
Institutional theory stresses the explanatory power of organizational environments (DiMaggio & Powell, 1991; Zucker, 1977; Barley and Tolbert 1997) and suggests that most human service organizations face circumstances where there is great pressures to decouple core organizational technology from other structuring forces (Meyers & Rowan, 1977). Rather than attending to program delivery, this theory posits that organizations gain legitimacy and power by mimicking structural elements, such as financial management metrics, human resource practices, marketing or fund development. In this frame, the success of an organization is determined by how well they appear to be delivering services. This can involve mirroring conventional systems of classifying and diagnosing clients, sorting them into understandable groupings for treatment.

However, the popularity of institutional theory as a tool for nonprofit analysis has led to a gap in scholarly attention about the questions raised by the variations in program delivery among organizations in the same institutional environment, such as those illustrated in Figures 2 and 3.

While human service organizations do face incredible pressures to legitimize themselves within the environment, the actual process of program delivery must not be overlooked. For one, technology is the distinguishing aspect of a human service organization – it is the way the organization tries to influence, help, or support the people it is serving. It is the mechanism an organization uses to contribute to socially desired outcomes. Secondly, institutional theory overlooks the real agency people demonstrate by continually trying to improve their service delivery (Barley and Tolbert 1997; Fligstein 2001). In spite of many disincentives, countless frontline human service staff work to adapt practice ideals to improve their work with clients. Similarly, managers do not passively adopt prevailing ‘best practices’ in human resource management or financial management any more than they are passive adopters of programmatic
directives within public policy. Staff and managers are thinking, testing, adapting individuals who try to align these structures with their organization and its core operations. Finally, a new set of pressures facing many human service organizations makes program process improvement important; the international focus on performance management requires organizations improve internal program effectiveness and document the results of their activities for various stakeholders (Barzelay 2002; Kettl 2005; Light 2000; Moynihan 2006). This emphasis requires a more sophisticated understanding of how the technology of human service organizations is carried out and contributing to socially desired outcomes.

To develop more robust explanations, we can benefit from examining social theories exploring individual agency and social structures. One of the most troubling issues in social theory, in fact, is how the actions of individuals are related to the structural features of society. Rather than assuming either the deterministic viewpoint of structural functionalists (Parsons 1956) or the relativistic viewpoint of phenomenologists (Garfinkel 1967), a body of theories try to bridge the deterministic macro- and relativistic micro- to address how humans exert agency within social settings (Ritzer 1992). Some explore these concepts using the concept of structuration (Giddens 1984, 1990; Whittington 1992; Sewell 1992): Others (Latour 2005; Callon 1998; Law 1993) focuses attention on the unfolding process of interactions, through which people continuously reassemble the social in actor-networks.

Although there is much that distinguishes these bodies of thought, for our purposes here, it is important to see what they share. For one, they both focus attention on social context as site of scholarly inquiry. Rather than assuming that context can be captured as discrete variables and controlled for in predictive models, they push us to move away from dominant social science paradigms that try to document causality. Instead, they suggest that social science can be most
fruitful if it takes as its central premise the need to lend deeper insight into the social. To Latour (2005: 13), social inquiry is more fruitfully understood to be “a science accounting for how society is held together, instead of using society to explain something else…”

These theories also have significant implications for the conduct of empirical research. They all draw attention to the important role both people and nonhuman forces play in the actual creation of social structures. People are agents. They shape the contexts of their work. Each acknowledge the way objects shape social interaction and fundamentally shift them. Overall, this paradigm stresses that the ideas, frames, and resources used by those being studied should remain more significant than the analytical categories of social science. Rather than “subjects” of scrutiny and interpretation, “informants” must be recognized as skilled social actors whose way of thinking and being are shaped by and shape the social settings. By attending to the local knowledge and tools found in a particular context, empirical research can shine lights inside of processes that too often are understood as ‘black boxes.’

While any school of thought within this theoretical tradition could be used to analysis organizational technology, let us focus on the work of Anthony Giddens whose theory is widely used in organizational studies (Vallaster and de Chernatony 2006; Haugen 2006; Jones et al. 2000; Bresnen, et al 2004; Orlikowski 1992; Sarason 1995; Stones 1991; Whittington 1992) of private industry to bridge “dichotomous logic” (Pozzebon 2004, pg. 247). This logic traditionally has separated scholars focusing on predictive models to explain structural variation from those espousing strategic management as a way to shape structures. In Giddens’ terms (1984, 1993), the social contexts in which people find themselves are considered their “social systems.” Social systems do not inherently possess structure but rather are structured by people to organize and understand their actions, to make sense of the circumstances in which they find
themselves. Like the other theorists operating in this vein, Giddens believes humans are knowledgeable about the conditions within which they operate. We do not passively respond to structural forces; we possess the ability to alter the social structures that shape our lives because we are skillful agents. Our skill lies in the implicit knowledge we possess about our context, our social systems (Fliqstein 2001). We can reflect upon the consequences of our actions, share them with others and make revisions when faced with a similar situation. The social systems construct has great conceptual appeal because of its general applicability to multiple levels of analysis and various substantive areas. To use social systems to bring more analytical precision, however, it is important to define it concretely; in the application here, we are specifically concerned with the frontline social systems of human service organizations.

Giddens’ analysis of structure unpacks social systems by differentiating “rules” and “resources.” Rules are the virtual norms or conventions of social life and they exist on multiple levels (Giddens 1984). The deepest are those used in the replication of societal institutions, such as language, time or marriage. On another level, rules convey the norms of social interactions, such as greetings, relaxed conversation, or heated debate. On still another level, rules are the knowledge that people develop when operating within a particular context, such as an organization. Rules at this level become important to our discussion of human service organizational technology. Rather than being formally written or stated, social rules are informal and implicit. They are the knowledge that people develop out of experience and practice and share with each other during routine actions. As such, they are the deepest level of organizational culture, underlying assumptions, that guide collective work (Riley 1983; Schein 1990). Rules provide a shared background of mutual understanding which allow us to orderly exist in organizations (Ranson, Hinings et al. 1980).
For Giddens, resources are anything that serves as a source of power in social interactions. They include human attributes, such as physical strength, authority, or knowledge. They also include concrete objects, such as budgets, formal plans, and other management tools, that can help accomplish the work at hand. Resources both exist within social systems and can be brought in by members. In terms of human service technology, resources can be critically important in determining how core processes are developed and carried out.

Giddens’ theory posits that by drawing upon the salient rules and resources of a context, individuals actually create the structure of their social systems. Usually this structuring is not deliberate. People regularly use normative standards and conventional beliefs to interpret experience, not questioning whether these standards should apply in that particular instance. By routinely adopting dominant rules and drawing upon resources in ways that support those believes, their salience is reinforced within the social setting. They become structural. This structure, in turn, provides a shared way of interpreting events, understand experience, and convey appropriate behavior. So although structures emerge from social process they, in turn, limit the range of plausible actions in that setting because certain options become irrational. This notion of structure provides a helpful insight into daily program delivery in many human service organizations; often-times programs operate the way they do because they seem to work ‘well enough’ given the resources (people and materials) present in the organization.

Through the lens of structuration theory, however, structures are not purely objective; they do not rule out the potential of other possible courses of action. They can be changed. Sometimes, this change happens unintentionally, as people come to develop new understandings of an issue because of changing norms or events in the larger society. Sometimes structures change through the imposition of new mandates from outside the organization or the availability
of new resources. However, structural change can also occur when individuals recognize how their own actions support the existing structure and make a commitment to acting differently. Structures emerge from social processes. Because they are an outcome of human choices and actions, people can always recognize and exert their own agency to try and change them.

Exploring the Structuration of People Processing and People Changing Organizations

To illustrate how structuration theory can deepen our understanding the technology of human service organizations, let’s turn to more in-depth consideration of the welfare-to-work and early childhood education agencies described earlier. The welfare-to-work organizations work short-term with most clients in Work First programs. The staff process clients and monitor their activities until each can secure twenty-hours a week of employment. The early childhood education sites provide education and care, 5 days a week, 52 weeks a year, focusing specifically on three and four-year olds; they are explicitly trying to change the young children they work with and prepare them for kindergarten. Yet, in spite of these difference in aims, the managers and front-line staff running both types of programs develop particular social structures. They used these structures to mediate the imposition of program elements as envisioned by policy makers.

In the welfare-to-work cases, all organizations were delivering a model that presumed referral from the public welfare office, orientation, placement into ‘job search support,’ and, if needed, ‘job readiness’ activities until employment is secured (See Figure 1). Field research, however, reveals significant variation in how this policy idea was carried out. At Eastside, for example, ‘job search workshops’ last only a few hours a day, three times a week, even though policy requires client engagement for a mandated 20 hours a week until employment is secured.
Even during those few hours, client attendance is not closely monitored. Clients sign in to identify three potential employers in the phone book or newspaper and note them on a contact log. Once it is filled in, the supervisor signs the list and the client is free to leave. On random days, clients might be asked to complete mock applications, listen to lectures about personal hygiene, or report back to the group about the employers they had contacted. Clients flow in and out through the door during the entire morning, most spending little more than 20 minutes at Eastside. Although clients are instructed to do 14 hours of individual job search – picking up applications, inquiring about opportunities, having interview – these activities are not monitored or even discussed with program staff at the site.

The two other Work First programs highlighted in Figure 2, Helping Hand and Enhance Corporation, have more structured activities. However, not all are always focused directly on getting clients into jobs. At Helping Hand, in the fancy-titled ‘career academy’ class, clients are directed to complete paperwork, do route assessments, and construct resumes, without any customized assessment of their work readiness, ability or interests. To comply with the 20-hour attendance requirement, clients are mandated to do eight hours in the computer lab, brushing up on basic skills or exploring career interests. After two weeks, they move into the ‘job club’ in which they must come to the site three days a week for two hours to make phone calls. During each session, they need to make and document 20 phone contacts. Attendance is closely monitored and if a client completes her phone calls within 30 minutes, she still needs to stay at the site until the end of the two hour period. The rest of job club focuses on individualized contact with potential employers (which needs to be documented) and access to job placement staff.
In both organizations, these activities and the staff actions that supported them are justified – in fact understood to be the only reasonable option – by the front-line social structure. Eastside was a community college and the staff strongly believed in the benefits of formal education. All had previously worked at the school before it received the welfare-to-work contract. They perceived Work First as, in the words of one staff member, “…a temporary fix to a long term problem.” As a result, staff believe they must take a “humanistic” approach, providing a haven for clients, a place where people care about what happened to them. At the school, teachers have considerable autonomy in defining what is done in their classrooms and it is assumed the same should be true for the welfare-to-work program; there is little management attention and staff are used to making programmatic decisions themselves. As a school, Eastside also has few concrete resources to support job search activities – no computers for enhancing clients’ skills, no telephones for making calls to potential employers, no materials to enhance job search skill development. These limited resources and the rules that clients need merely a safe haven support justify the lack of substantive job search assistance.

In addition to legitimating the limited service technology, the front-line social structure at Eastside also shapes other activities. Because contact with clients occurs only a few hours a week, other tasks, such as paperwork, expand to fill the time. Rather than assigning paperwork to one staff member, each of the five program staff at this site are responsible for it. When asked, they estimate 90% of their time is taken up with paper and data entry. One day, as staff sat organizing files and complaining about the never-ending deluge of paper, I asked why they spent so much time on it. With incredulous looks, Tricia responded, “It’s our jobs.” Then, after a minute, she asked self-consciously, “Do you think we spend too much time doing it?” Before I could respond, her colleagues jumped in with immediate justification – they needed to make sure
files were up to date to stay organized, to manage the volume of clients, to satisfy state monitors. Within this social system, the structure staff developed sustains their attention to paperwork, even when they resent the monotonous routine.

A similar process, although with different specifics, can be found at the Helping Hand welfare-to-work program. This is a community-based site of the county government’s human services office and, in comparison to Eastside, staff have many resources at their disposal. Filled with shiny, new furniture and modular cubicles, the office has up-to-date computers lining the walls for client skill development. Bright posters extolling the value of employment and providing information about resumes, cover letters, and career options, pepper the walls. Yet, staff complain that these resources are not well suited for the program technology: the construction and arrangement of offices makes it impossible to have confidential client meetings; while the large classroom is appropriate for a large group, it limits staff ability to work with smaller groups or customize programs. So, although the resources appear excellent, they constrain staff action. In fact, the mismatch between the utility of the resources and the program tasks reinforces a front-line rule share by staff – county government is inefficient and they are fortunate to operate in a more autonomous satellite office.

When asked in interviews, staff voice significant doubts about the viability of Work First model, although they clearly believe welfare recipients should find employment. In this county, the economy is strong. Clients’ success seems more dependent upon their inherent motivation than whether or not they attend the Work First program. As Theresa said, “…[T]here's no real point to go into the Work First program for a lot of people. If people who are on welfare are interested in getting a job,…they go and get a job….If they're not, then they don't want to come to a program that's going to have them 20 hours on the job.” This belief, reinforced with each
story of a client who found a job before attending the program orientation or each newspaper headline about the county’s low unemployment shared in the lunchroom, has come to be a rule of this social system. Although there are considerable resources available – computers, telephone banks, access to county services – staff do not mobilize them to help welfare clients get jobs.

The program technologies at Eastside and Helping Hand differ dramatically from that used by Enhance Corporation to move welfare recipients into the workforce. At this site, activities focus on achieving the policy goal of client employment after short program interaction. In the first week, participants attend a structured ‘classroom training,’ where instructors strive to develop relationships and build trust with each individual client through skits, testimonies, and stories. On the final day of classroom training, staff meet individually with all participants to both identify sectors for targeted job search and conduct mock interviews. Throughout the agency, from management to support staff, there is a deeply held belief that to become self-sufficient, clients just need to start with one job, any job. This rule is explained by Clarice: “...Everyone is employable.... The only thing you have to do is stop and think, ‘What type of employers hire high school students?’.... It might be some of the lower skilled places – McDonald’s, Burger King– but it’s at least getting their feet in the door.” In this organization, staff develop and utilize tools, such as extensive employer lists and files of applications, to help them carry out their responsibilities. These important resources help them find employment for clients. In contrast to other organizations, this front-line social structure helps staff focus their actions through a service technology that engages clients and builds their desire to find employment and leave welfare far behind.
Yet, Enhance Corporation staff do not believe they can work miracles with resistant or multi-problem clients. In contrast to the lax participation monitoring at Eastside and the obsessive attention to in-person attendance at Helping Hand, Enhance staff expect clients will exert effort and engage in the job search process. If they do not make this effort – or if they have problems such as drug dependency or mental instability – staff do not hesitate to refer them back to the public welfare office. In this front-line social system, the interactive methods of classroom trainers, the individual assessments and mock interviews are all logical and legitimate actions. As in other sites, this technology also structures the nature of staffs’ day to day tasks. Staff meet weekly in teams to discuss the progress of each individual participant in the program and strategize about how to find appropriate employment for that person. If appropriate progress is not observed, or if other social issues discovered by the team, they do not hesitate to refer clients back to the public welfare office for sanctions. This action was never discussed as a viable, routine strategy by staff in the other two welfare-to-work sites.

Although these three welfare-to-work providers all are responding to the same policy mandates, operating a similar program model, receiving comparable levels of funding, and being monitored by the same outcomes, they have developed unique core technologies for delivering this program. As structuration theory suggests, these technologies are structured by the shared rules staff develop about the nature of their work, their clients, the validity of policy mandates and by the way resources are deployed within these context. A similar analysis can help explain the variation in people changing technologies within early childhood education settings. As Figure 3 illustrates, the components of this technology are more complex. Federal Head Start rules and state preschool regulations mandate that some services, such as health and parental support, be available. All of these sites operate full-day, full-year to provide care and education
to low-income children and their parents. Yet, each organization configures these services differently, with important consequences for clients access and service intensity.

Early childhood organizations must contend with the reality that parents searching for child care have unique circumstances and abilities to pay. The organizations in our study received public funding from at least three sources – child care subsidies (from the county), Head Start (from the federal government), and preschool dollars (from the state) (Sandfort, et al 2008). Parents who successfully access rare child care vouchers enable organizations to get reimbursed for services from the county; very-low income parents with three or four-year-old children are eligible for Head Start programs; still other parents pay directly but – as citizens – are eligible for part-day, publicly funded preschool for four-year-olds. These complex eligibility conditions are reconciled in unique ways according to the rules and resources of the social system in each site. Let’s focus on one element of the programming – initial assessment and classroom assignment – to illustrate how front-line structuration occurs in these people changing organizations. At all three sites, staff do rolling enrollment into the program throughout the year; when eligible families come to the sites, they are assessed and their child placed into a classroom. While child development principles would suggest that technology focus on providing care continuity for children, this research-based knowledge is not what drives decision-making. Instead, other factors are more significant in directing staff action and program delivery.

When parents come to Salute inquiring about care, staff ask a standard set of questions. If they meet the income-eligibility criteria, parents are told that their child can enroll in one of two “Head Start/Day Care” classrooms. If their child is four-years-old, she will be pulled out for a half day “Preschool enrichment.” In the Preschool classroom, she will interact with other
children from more diverse backgrounds, since income-limitations are not operative. There are clear distinctions made between the substantive programming in the Head Start/Day Care and the Preschool classrooms. Each teacher brings in her own perspective. The Head Start / Day Care teacher has an early childhood credential and years of Head Start experience; she believes her work is to provide a critical early intervention into the cycle of poverty. In contrast, the Preschool enrichment classroom is run by a teacher from the local school district; she has a 4-year degree in education and is only on-site because of a formal partnership between the school district and Salute. She sees her job as part of the larger educational system and essential for getting children ready for school. These beliefs are reinforced by staff meetings, professional development opportunities, and performance assessments and have come to be a rule within the social system: these classrooms exist for distinct purposes. This assumption causes all of the staff within the organization to direct unique resources to each classroom, distinct child assessment tools, special curricula, unique materials, even different parental engagement and family support services. While this structure guarantees that neither teacher will encroach upon the other, it also guarantees that each operates as a silo, even though they are working with many of the same children. The teachers do not regularly meet to think about how to comprehensively serve children. Instead, four-year-olds move back and forth between the classrooms for part of each day, often receiving duplicate, rather than comprehensive, services.

Intake assessment has different implications for classroom assignment at the Opportunity Child Care Center. At this site, referrals for early childhood education often come from the other human service programs operated by the agency. Although referrals happen throughout the year, program enrollment is not constant. If a four-year old’s name is received before May, his parents meet the income requirements, and he can wait to start until August, he is placed in the...
organization’s full-day “Enriched Day Care” room. In this room, he can access an array of services, including health screening, referrals to behavioral health services, and dental cleanings. If a referral is received at a different time of the year, or any of the other criteria not met, the child is placed in the “Day Care” room. Even though this sorting causes systematic under-enrollment in the Enriched room, staff do not challenge or change this practice. Within the organization, managers and staff deeply believe public rules mandate their programmatic set-up. They evoke manuals, training events, and other resources to justify it. Even when waiting lists grew for their Day Care room and under-enrollment persisted in the Enriched classroom, they did not change this sorting practice. Ultimately, the Opportunity Child Care Center closed this early childhood site because it was unable to financially sustain it with this classroom configuration.

Operating under the same policy mandates and accountabilities, program delivery at the Volunteering Center is shaped by other front-line social structures. Enrollment is supported by an important organization-wide resource: a client-management computer software allows for easy identification, tracking, and billing of clients and/or public funding sources. This resource, and the shared belief that public funding streams should support the agency’s full programming, allows the organization to operate a program that allows many children to access an array of services. At Volunteering, staff do not create separate classrooms to segregate children because of the characteristics of their families or the public funding source. Instead, family workers fill out the required paperwork associated with public funds and navigate conflicting rules, intervening on behalf of parents rather than allowing such restrictions to become a barrier. The director, in fact, thought to secure initial funding for this service from the larger organization because she realized this service could help link parents to other Volunteering services, such as
emergency food, clothing or GED classes. Over time, the cost of these family workers were covered, in part, by private-paying parents’ fees.

At Volunteering, there are three, full-day early childhood classrooms for three and four-year olds. The teachers in all three classrooms use the same curriculum, child assessment, and share additional teaching assistants. All children access on-site health, dental services and referrals to mental and behavior health care are made regularly. Within the organization, there is a palpable sense that they are working together towards their common mission of providing high quality education and services to families. This belief is reinforced by the various resources found at the site – family workers, research-based assessments, standard curriculum, materials for gross-motor play, and the client-management computer software. The social structure in this organization supports the provision of seamless early childhood services. That same structure – in turn – supports certain staff practices. For example, teaching staff from various classroom regularly work together to develop educational activities, trading ideas gleaned from conferences and training sessions freely. Case conferences between family workers and teachers of siblings regularly occur because staff presume they should all be focused on trying to work most effectively to support the entire family.

In all of these cases, the technologies enacted by these human service organizations – be they people processing technologies like the welfare-to-work agencies or people changing technologies like early childhood education – emerge from the front-line social systems. These structures evolve out of the unique ways staff come to understand policy mandates, often mediated through their own beliefs and experiences. They influence how resources are developed and directed to support the program technology. These structures also direct staff
action and can sustain activities even when they have a negative consequence, such as mindless paperwork completion or systematic classroom under-enrollment.

**Implications for Future Research**

Giddens’ structuration theory, as well as other practice-based social theories, suggest that the variation found among organizations charged with carrying out the same public policy mandates is a direct outcome of front-line social processes. This theoretical tradition is useful for analyzing the black box of human service organizational technology. Current trends in social welfare research focuses on identifying evidence-based practices or model programs and then assessing fidelity to the model in subsequent replication (Gira, et al 2004; McGrew et al. 1994). Yet, my welfare-to-work and early childhood education examples challenge the assumption of this approach. Within human service organizations, program technology is not merely an ideal to be discovered and replicated. While core program elements causing desirable social outcomes are important, technology is an ongoing process, accomplished by particular social actors within organizational settings. They make decisions about the utility of these core program elements and bring them to bear at relevant moments, in light of their other ways of knowing.

While practice-based social theories can inform research in many organizational settings, there is particular appeal in using this approach to analyze the work of human service organizations. In an interview for the early childhood education study, one senior manager suggested a plausible proposition:

…The majority of [staff] really do want to provide good, high-quality services. Yet, many [agencies], …particularly those that provide services to low-income children and families, have had to depend upon … subsidies far below market rate. May of them didn’t have the resources they needed to be able to do programming differently, do programming at the level at which it should be done. It wasn’t lack of knowledge. It was lack of resources. One of the reason we have so many different models is, to quote Malcom X, ‘by any means necessary.’”
In resource-starved human service organizations, the structuration process may be particularly
significant. In these settings, there is often limited understanding of models proven to create the
desired outcomes. Shared beliefs systems which inform what staff believe they can (and can’t)
do have great significance in directly staff action and collective interpretation of events, new
management ideas, and policy mandates. Such beliefs often emerge from practice-base
knowledge gleaned from years of experience and are passed onto less experienced colleagues as
the legitimate way to get things done; as a result, they often have more salience than lessons
from research or professional claims of evidence-based practice. Instead, as staff strive to
reconcile their own shared beliefs with the reality of limited infrastructure, staff and managers
are left to create technology “by any means necessary.”

As the examples of the welfare-to-work and early childhood programs illustrate,
however, social structures can hinder staff’s abilities to actually learn from their experience or
carry out policy intent. Welfare-to-work staff embrace paperwork rather than question the
fundamental premise of their program. Early childhood staff under-enroll children in their
enhanced program rather than crafting practices that allow them to act more consistent with
policy intent. Although front-line staff try to reconcile the ambiguity of human service provision
by creating social structures, they unknowingly contribute to it. The unique structures which
develop in each service provider make sense to those in the social system, yet they often have
limited generalizability; they are hard for clients, policy makers, even staff from other
organizations to understand.

So in resource-limited human service organizations, particularly those where practice-
knowledge is upheld more than professional values of evidence-based interventions, the specific
of context matters significantly. Rather than labeling technology in these settings as merely
ambiguous, insight can be gleaned by analyzing the social process at the frontlines (Lin 2000). While devolution of programmatic authority, limited scientific knowledge of program efficacy, client motivations, and the unavoidable discretion of front-line workers does make it difficult to specify technology, structuration points to an underlying process that plausibly explains how staff in organizations actually carry out human service work. Rather than evoking larger institutional forces, individual worker discretion, or amorphous differences in organizational “culture,” an analysis of structuration focuses attention to the shared beliefs in organizations, the rules, that develop from practice. It explores the resources of the context and how, together, they actually create structures that allow staff to understand, justify and sustain their own actions, even in light of policy mandates. Structuration theory highlights how staff simultaneously create, sustain and operate within the particular parameters of their organizational contexts. It also opens the possibility of capitalizing upon discretion to improve program capacity and effectiveness from the street level.

In fact, there are many avenues for future research which are opened up from this new understanding of human service technology. For one, not much is understood about the way managers and agency executives can build programmatic capacity. Managers and leaders may suggest beliefs and interpretations of events, reinforce them, and garner resources – computer systems, training opportunities, consistent performance measures – that can shape front-line social systems. The welfare-to-work program at Enhance Corporation and the early childhood education interventions at Volunteering both illustrate how management attention can help align the front-line social system in human service organizations with desirable outcomes. Yet, little research systematically investigates such dimensions of management practice and considers their consequences within human service organizations.
Secondly, a structuration lens challenges the growing movement in social work to focus on evidence-base practice and assess organizational technology in relation to its faithfulness in model replication. This paradigm pushes researchers to see organizational technology not as a means of replication but as a process of translation. It takes seriously both the social context of the organization and the need for research methods that attend to it. Only through such inquiry will we gain insight into how the variation of technology – under similar environmental circumstances – is created and maintained.

Future research on human service organizations can benefit from attention to the social theories of Giddens, Latour, and others who explore the relationships between individuals’ agency and social structures. As is found among scholars of business organizations, a “dichotomous logic” exists within social welfare research. Considerable attention focuses on trying to isolate the social structural factors – such as race, class, gender – that can predict client- or organizational-level outcomes. Yet, social welfare is filled with important examples of individuals that defy such predictive factors, individuals that create social movements, organize communities, or work as citizen leaders. Some scholars are beginning to discuss how both larger social forces and human agency can be reconciled at the multiple levels of social work practice (Cooney 2007; Emirbaye and Williams 2005; Kondrat 1999; Mullaly 2007; Sandfort 2003). It is hoped that others will be motivated by my attempt to further this development by applying such theories to improve our understanding of human service organizational technology.
References


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