Clinicians Vs Information Technologists

Issues of Power during Implementation of new Technology

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Abstract:

Clinical and Information Technology departments' situations are so dissimilar that they constitute different cultures. By analyzing implementations as a conflict of cultures, one may illuminate issues that need to be addressed and how to address them. Information Technologist, I.T., can be seen by Clinicians as attempting to control the clinician's, time, autonomy, pay, and patients, the very thing clinicians' value. Clinicians can be seen by Information Technologists as being against innovation, archaic, and unable/unwilling to perform their role, issues that do not allow I.T. to do its job. By understanding how each culture is made up and the power struggles that ensue, one has a basis for understanding and negotiation.

Introduction:

> *It is a sad state of affairs to see the proud practice of medicine reduced to typing on a computer.* -Anonymous Clinician[1]

This quote comes from a clinician in the midst of an electronic messaging implementation. What does a statement like this mean? How might such thoughts come about? Why is the clinician sad and what reduced medicine to this level? There are any number of ways to analyze this sort of statement, and the situations that may have brought it about. Looking at technological implementations from the point of view of a clash of cultures, one can more readily understand such sentiments, and then go about addressing areas of conflict.

The conceptual framework for my analysis includes six aspects. Information Technology, I.T., can be thought of "the use of technologies from computing, electronics, and telecommunications to process and distribute information"[2] and includes those who specialize in its design, use, and maintenance. A clinician is one who is directly involved with a patient, and has certain certifications.[3] Culture, is a "set of shared attitudes, values, and goals".[4] "Power" is the dependency one group has upon another.[5] Finally, the notion

of an implementation is that which is "to give practical effect to and ensure of actual fulfillment by concrete measures" [6]–the introduction of new technology.

While a hospital may have an overriding mission to help patients, individuals making up that organization will have particular perspectives. Information Technologists and clinicians have different sub-goals that have them form different groups or sub-cultures.

More than just a natural affinity for people with commonalities, groups in a functional department organization are often created by the organization to allow for efficiencies.[7] Groups can also facilitate employee participation in operating decisions.[8] This also gives members of the group increased political power in the within the organization.[9] Such a group, with its commonalties and action towards goals constitutes a culture. A culture allows individuals to push forward their agenda with the help of the group. As we will see, a culture may find itself in conflict with another culture within the same organization.

Clinical Culture

There are many aspects to clinical culture. We will briefly identify a few distinguishing characteristics that will also help us with our analysis.

When listing their ideal job, clinicians have included; clinical autonomy, substantial income, and being spared administrative work.[10, 11] They find the daily interactions with patients very rewarding.[12] There self-esteem is most closely associated with their diagnostic competence.[13] They are quite good with critical and analytical thinking, but may be less used to more lateral approaches.[14]

The physicians "cherish" their autonomy [15] and are frustrated when it is constrained.[16] They do not want to be told how to practice.[17] They have traditionally been the more powerful member of the patient/physician relationship[11] and may feel that the are in control of the hospital.[19]

That said, not all clinicians belong to a group or agree with all group ideas. Some clinicians are not used to a group having control over their autonomy.[20]

Clinicians are often products of a formal process that includes, specialized training, registration, and qualification by a college.[21]

Information Technology Culture

I.T. culture is similarly complex, but for our purposes can be seen to include the following:

I.T. is a "brash, young industry."[22] It is an unstable field to work in with new competitors and built in obsolescence.[23] Members of I.T. do not necessarily have formal training.[24]

Members of I.T. work in anonymous teams and get near instant results.[25] Their focus is on information systems and not culture.[26] For functional, as well as cultural, reasons they draw a distinction between "Developers" and "Users". They may not have had much formal introduction into the issues of healthcare. What the technologists learn about healthcare is simply from their environment. They are not "acculturated" via professionalism nor socialization. [27]

I.T. skills include project management and implementation. While I.T. may feel it owns the problem, they may not have the authority to make the decisions.[28] They may feel that they often get the blame, but not the rewards. [29]

The Implementation "Battleground"

Change

One of I.T.'s core competencies often includes project management. During an implementation, I.T. is charged with making a hardware/software solution "live" within an organization. That would include activities within the clinical culture's domain. As such, I.T. is the most directly identifiable agent of change. This would put it at odds with the clinical culture which may see change as counter to its culture[30] and innovation[31] as something not coming from within their but from the outside.

As the implementer, I.T. is pressured to make sure the project is successful, making I.T. dependant on the clinical culture to adhere to I.T.'s plan. Thus, I.T. is dependant on the clinical culture, making for issues of power.

As the change agent, problems that occur may be seen by the clinical culture to be the problem of I.T. and that I.T. should be the ones to fix it. [32] The clinical culture may push back further, requesting that I.T. come up with a solution, and not the clinicians. [33] Part of this may be due to the clinical culture being used to transactional leadership when what they truly need is transformational leadership. [34] It also sets up a perspective of dependency of the clinical culture upon the I.T. culture leading to issues of power.

Cultural Values at Risk

Creating further conflict, or misunderstanding, is that I.T.'s culture often includes transformative change. I.T. may make assumptions about ability/willingness of clinical culture to change that is incorrect. I.T. may expect things to happen quickly, and be more dismissive of the "people" issues of the "Users".

A technological solution may affect many of the aspects that the clinical culture holds dear, and even helps define them. In the case of an electronic messaging implementation, and also true for many others, the technology, and thus I.T. by extension, makes several demands of the clinician.

Clinician's time is a limited resource and as such a possible area for conflict. [34] Clinicians are dependant upon having a certain amount of time. Technology often requires the clinician's time, sometimes merely replacing an older process, but certainly at the beginning requiring more. As such, the clinician's time is no longer theirs but dependant upon I.T.

Clinicians are dependant on having patients, both for remuneration as well as a core, intrinsic, reward. An I.T. system can be seen as a gatekeeper, or the medium, that the patients must pass though to get to the clinicians. Thus clinicians' are dependant upon I.T. for patient interaction and income.

I.T. systems can make a substantial, change to workflow and communication. [36] Roles that were defined in the past can become ambiguous. This can manifest itself by calling into question who gets paid for what, as well as clinician autonomy. By making a clinician's role at best ambiguous or at worse, defining it, clinician's autonomy suffers. Clarification of their roles may depend on the I.T. system, and by extension the I.T. department.

Additionally, as gatekeeper and workflow/role definer, I.T. can be understood to be affecting the clinician's pay. No only may there be a decrease in efficiency, but by having clinicians do more "cognitive" physician services as opposed to procedures, they stand to have fewer reimbursements. [37]

The type of documentation necessitated by some technology may be seen by the clinicians as more akin to paperwork and red tape, two areas that are cited leading to physician burn out. [38]

Culture and Politics

Changes in power relationships and miscommunications, due to differences in culture, during an implementation may lessen the trust between two cultures that thought they knew each other. [39] As trust recedes there is a trend towards the political.[40] With the rise of politics, groups may find it necessary to become stronger. This may lead to more inter-cultural conflict, as well as individual clinician's losing their autonomy as they are subsumed into the group cluture.[41]

Cultures may find themselves needing to become more formal, creating new roles for members, in order to properly deal with a more political situation. [42] Conversely, unity-of-command within the culture comes into conflict with the need for inter-departmental leadership of the project, making roles ambiguous as well. (Compounding that problem is that I.T. systems are not culturally neutral. They may favor some groups of clinicians over others.[43]) The clinical culture can be seen to be changing in order to respond to I.T., in such a way, their clinical culture is being at least partially defined by, and thus depends on, IT.

If the I.T. culture is non-responsive to issues of the clinicians, miss-communicates their intentions, or worse, reinforces the clinician's resistance, the whole project may be in trouble.[44] When clinicians perceive their *patients* "as demanding, noncompliant, or ignoring problems, physicians may see this as an affront to their professional identity (which gives them their power) and may lead to the misuse of power."[45] We might expect they treat I.T. in the same treatment manner.

Solutions and Conclusions:

> *The difficulty in most knowledge management effort lies in changing an organizational culture and people's work habits.*[46]

Many of the general aspects for a successful implementation are known. From the analysis we can see how they address the cultural issues. Things that can positively affect inter-cultural relationships include:[47] A shared vision- which allows for a superordiante goal that crosses cultures and helps them work with each other. People issues are primary- mitigates the individual's relationship to the process by addressing people's concerns, lessening the need for escalating cultural power politics. Clinical champions- those that can cross the I.T./Clinical cultural divide. A critical mass- makes sure that there are enough people on both sides that are ready for change. Mutual trust- in order for two cultures to work together, especially with various power imbalances coming into play, they need to trust each other to work towards their goal. Both cultures would do better if they knew more about how each contributes to healthcare.[48]

One may shy away from describing a project in terms of Us-Vs-Them for fear of alienating the other. However, one needs to understand the professional cultures of the participants as well as possible dependencies of power. In this way one will know what needs to be addressed for a successful implementation.

End notes:

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