Reading Notes: Social Systems
Niklas Luhmann

- Double contingency is a fact of meaning, and the domain in which social software must be situated is a meaning-based domain: each invididual must come to understand what others' communication and action means. This fundamental point seems to have eluded a lot of what I find in the literature on social software. Authors, designers, and critics alike tend to view meaning-based events such as communication, transactions, exchanges, and interactions as straight-ahead and straight-up phenomena. What happens on one side (with one user) happens equally on the other (Other user). As Luhmann points out—and he's only drawing on the hermeneutic foundation of contemporary sociology; this is not his own invention—each actor's interpretation is implicated in the Other's actions and vice versa. This double contingency throws a wrench the works of any simplistic views of social systems.
- It is easy to confuse terms here: social system as Luhmann uses it is an application of systems theory to societal systems. It is not a "technical system." As we're many of us designers and engineers, we have to keep this in mind, if we're to use Luhmann's approach.
- Luhmann's modification of communication theory is brilliant. He notes that we need to ask whether society comes out of communication or action, and ultimately, he combines both by integrating action theory into communication theory. His steps are this: that communication first involves understanding (each actor must understand what is said); this creates the possibility of a yes/no response. It is the response that

integrates action into communication, and which furthers the interaction, thus creating and limiting further communication/action.

- Luhmann's distinction between communication and action leads to a distinction between communication and interaction. The meaning, and the process of understanding meaning, is distinct from the production of a linguistic utterance. This is critical in my approach because I view most of these social software systems as talk systems. The production of talk (e.g. speech in the *form* of text) should be viewed as communication; the handling of talk, and speaking (IM'ing, emailing) actors should be viewed as interaction. Each sets up its own needs. The distinction is powerful in that it provides ground on which to separate communication tools and interaction tools, along with the necessary design and use constraints belonging to each.
- Ambiguity, which naturally accompanies any conversation or speech situation, is exacerbated in talk systems or social software systems by the intervention of technology itself. Not only the technical design and interface but also the user practices built around it substantially impact users' means of going forward with communication and interaction. In talk systems, software facilitates (even while it puts its own stamp on) these linguistic and interactional proceedings. Now we can proceed to describe the user competencies required of a social software system. In other words, standard HCI and human factors stuff, as well as sociological, linguistic, and interactional stuff.
- I've been wanting to ground social interaction design in practices, rather than in design, cognitive science-based user analysis and modeling, or engineering. My claim that practices are first and foremost social and sociological works only if I can show that all social software is embedded in social practice. These practices assimilate technical solutions—they are not determined by them. We never leave the social domain.

Excerpts from Social Systems:

Parsons begins with the fact that action cannot take place if alter makes his action dependent on how ego acts, and ego wants to connect his action to alter's. a pure circle of self-referential determination, lacking any further elaboration, leaves action indeterminate, makes it indeterminable. This is not a matter of mere behavioral agreement, nor of coordinating the interests and intentions of different actors. Instead, it concerns a basic condition of possibility for social action as such. No action can occur without first solving this problem of double contingency, because any possibility of determination would then be lacking. Therefore Parsons includes solving the problem of double contingency within the *concept* of action, indeed, in such a way that he makes a normative orientation—with the assumption of consensus—an indispensable feature of action. Niklas Luhmann, Social Systems,104

Nothing forces one to seek the solution for the problem of double contingency exclusively in an already-existing consensus, thus in the social dimension. There are functional equivalents—for example, those in the temporal dimension. At first, alter tentatively determines his behavior in a situation that is still unclear. He begins with a friendly glance, a gesture, a gift—and waits to see whether and how ego receives the proposed definition of the situation. In light of this beginning, every subsequent step is an action with a contingency-reducing, determining, effect—be it positive or negative. Niklas Luhmann, Social Systems, 105

This modified, non-Parsonian understanding of double contingency has a twofold consequence. It enables the differentiation of a particular *world dimension* for socially distinct meaning perspectives (the social dimension) and it enables the differentiation of particular *action systems*, namely, social systems. The social is then accessible in all meaning as the problem of the similarity or discrepancy of interpretive perspectives. It is simultaneously a specific occasion for selectively coordinating actions within systems that can distinguish themselves from their environment. By modifying Parsons' theoretical approach, phenomenology and systems theory, the analysis of meaning and system/environment analysis, can be united. Niklas Luhmann, Social Systems, 106

"Symbolic interactionism" is equally unsatisfactory, although for other reasons. This direction in theory builds a contingently acting alter ego into the ego and sees, quite correctly, the process of mediation as the use of symbols. But it treats the problem only on one side of the interaction, assuming that all is the same on the other. It treats, so to speak, only half of the double contingency and thereby remains a theory of action. Social systems emerge, however, through (and only through) the fact that *both* partners experience *double* contingency and that the indeterminability of such a situation for *both* partners in *any* activity that then takes place possesses significance for the formation of structures. This cannot be grasped via the basic concept of action. Niklas Luhmann, Social Systems, 108

In the customary sociological terminology one can express this by saying that the degree of reciprocal knowledge required to reproduce the social system is a variable that is actualized to a different degree from system to system, one that varies with the type of social system and insasmuch depends on the variety of types that emerge in the course of sociocultural evolution. Thus we must consider different forms and degrees of the "personalization" of social systems (or an analogous variable, if ego and alter enact a social, and not a psychic, system). This means abandoning every substantialized interpretation of individuals and actors who, as the bearers of specific properties, make possible the formation of social systems. Instead, on the level of social systems, the question is posed: How much do the participants have to understand each other in order to communicate? Niklas Luhmann, Social Systems, 108

They concentrate on what they can observe as input and output in the other as a system in an environment and learn self-referentially in their own observer perspective. They can try to influence what they observe by their own action and can learn further from the feedback. In this way an emergent order can arise that *is conditioned* by the complexity of the systems that make it possible *but that does not depend on this complexity's being calculated or controlled*. We call this emergent order a social system. Niklas Luhmann, Social Systems, 108

The social system is a system because there is no basal certainty about states and no prediction of behavior to be built thereon. Only the uncertainties *that result from this* are controlled, and they are controlled only with reference to the participants' *own* behavior. System formation constrains (= structures) the possibilities of *safeguarding one's own behavior* in any such situation. Only thus can autopoietic reproduction, action out of action, emerge. Niklas Luhmann, Social Systems, 110

Is a social system ultimately composed out of communications or of actions? Is the ultimate unity, with whose dissolution the social would disappear, a successful coupling of different selections, or is it the single selection that can be attributed as action? Niklas Luhmann, Social Systems, 138

If one begins with the concept of meaning, it is clear from the start that communication is always a selective occurrence… Communication grasps *something* out of the actual referential horizon that it itself constitutes and leaves *other things* aside. Niklas Luhmann, Social Systems, 140

Therefore communication must be viewed not a s two-part, but as a three-part selection process. It is not just a matter of sending and receiving with selective attention on both sides; instead, the selectivity of the information is itself an aspect of the communication process, because selective attention is actualized only in reference to the very selectivity of information. Selectivity as such attracts further communication: it recruits communications that direct themselves to aspects that selectivity has excluded. Niklas Luhmann, Social Systems, 140

According to today's standard interpretation, information is a selection form a (known or unknown) repertoire of possibilities… Furthermore, someone must choose a behavior that expresses this communication. That can occur intentionally or unintentionally. What is decisive is the fact that the third selection can base itself on a distinction, namely, the distinction between information and its utterance. Niklas Luhmann, Social Systems, 140

…communication is never an event with two points of selection—neither a giving and receiving (as in the metaphor of transmission), nor as the difference between information and utterance. Communication emerges only if this last difference is observed, expected, understood, and used as the basis for connecting with further behaviors. Niklas Luhmann, Social Systems, 141

If one conceptualizes communication as the synthesis of three selections, as the unity of information, utterance, and understanding, then communication is realized if and to the extent that understanding comes about. Everything else happens "outside" the unity of an elemental communication and presupposes it. This is especially true for a fourth type of selection: for the acceptance or rejection of the specific meaning that was communicated. Niklas Luhmann, Social Systems, 147

In a somewhat different formulation, one can say: communication transforms the difference between information *and* utterance into the difference between acceptance *or* rejection of the utterance, thus transforming "and" into "or." It follows from the theorem of double contingency that alter does not represent one difference and ego the other, but that both differences must be noticed and dealt with on both sides. This involves, not a difference in social position, but a temporal transformation. Accordingly, communication is a completely independent, autonomous, self-referentially closed selections, a mode of constantly changing the forms of meaning material, of reshaping freedom into freedom under changing conditions, whereby (given the premise that the environment is complex enough and not ordered as pure randomness) experiences of reliability gradually accrue and are then re-included in the process. Thus a meaning world emerges through epigenetic evolution that makes possible communication that is less probable. Niklas Luhmann, Social Systems, 149

Sincerity is incommunicable because it becomes insincere by being communicated. Niklas Luhmann, Social Systems, 150

[Social Systems](#) (Writing Science) (Paperback)
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These reading notes were taken while researching source material and conceptual frameworks of potential use to *social interaction design*, an approach I'm developing for use in the development and design of social software, interaction tools, communication technologies and their applications.