

Steering Humanity's Future with the Dialogic Web **By Ray Luechtefeld, PhD**

Utopian Visions

Utopian visions have captured humanity's attention for millennia; places of plenty and leisure, peace and safety. Plato's "Republic", religious and intentional communities of the 19th and 20th centuries, and science fiction portrayals of technologically advanced human societies like that of "Star Trek", have expressed a broad variety of goals and approaches to the ideal society.

Rothstein and Muschamp (2003) noted that in general, utopias have been envisioned as places of "harmony, equality, the elimination of unmet needs or desire, ethical interaction, and [places that create] the resulting potential for new forms of human consciousness". Utopian societies in general are seen as places of individual freedom where the long-term common good is maximized. Utopian authors often recognize the tension between individual freedom and controls needed to ensure the common good, and there are many descriptions of the dystopian consequences of an imbalance between the two (1984, Brave New World).

While utopia can't be achieved, the best state that humanity can realistically achieve should reflect the characteristics of harmony, equality, ethics, and lack of need while preserving freedom and maximizing the common good. This implies, first, that humanity will be able to manage the challenges, large and small, that it currently faces.

Among the big challenges faced by humanity, perhaps the largest is managing to effectively address the warming of the planet caused by our reliance on carbon-based energy sources. The BBC recently reported on statements by the International Panel on Climate Change (2014) indicating that the costs of global warming on human health, global food security, and economic development will be severe. And yet, despite overwhelming scientific consensus, political will to action in many countries is lacking, allegedly as a result of profit motives by special interest groups and misinformation campaigns. These have hindered a reasoned public discussion of costs, the reduction of greenhouse gas emissions, and means to reduce the impact of warming.

Similarly, while some sources have suggested that global conflicts have been decreasing over the past several decades (<http://www.systemicpeace.org/conflict.htm>) problems of political instability still plague humanity. In many cases, as in Syria, where an estimated 150,000 civilians have died, food shortages have been blamed as a trigger for the conflicts. Approaches to ameliorate these conflicts through political dialogue or to prevent triggers, such as food shortages, often elude solution.

While not as stark as climate change and political unrest, smaller challenges such as bias, racism, and discrimination arguably have a greater impact because they touch the lives of so many more people. The lives of innumerable women are limited by lack of voice and cultural norms, vast numbers of LGBT people live in fear lest they be exposed, and, despite advances in civil rights over the past half-century, minorities face daunting difficulties as they struggle to make their lives better.

More subtly, micro-inequities (Rowe, 2008) can invisibly and ubiquitously permeate organizational / institutional life, where they demotivate employees and reduce overall effectiveness. Micro-inequities are "apparently small events which are often ephemeral and hard-to-prove, events which are covert, often unintentional, frequently unrecognized by the perpetrator, which occur wherever people are perceived to be 'different.'" (Ibid) They are "little acts of disrespect" that impede the success of their targets. Examples include failure to provide notification of relevant meetings, lack of timely performance

feedback, and inequitable job assignments. Their ephemeral nature makes them hard to prove (or even detect), without skilled observers or electronic or other recording.

Finally, experiences have shown that the outcomes of arguments, disagreements, and role-based differences in perspective are prone to being decided by the hierarchical position of the participants rather than the strength of the argument. While the actual costs of this "might makes right" bias are generally unknown, in a small number of cases they have had tragic outcomes. For example, management decisions to take actions to cut costs were implicated in the Deepwater Horizon oil spill.

Each of these challenges are linked in some way to the use of language. To overcome the challenges and for humanity to achieve the best state involves changing the way we communicate and interact with one another.

Dangers of utopia

But there are dangers in any move to change society. As Karl Popper said in "The Open Society and Its Enemies" (1945), "[T]he attempt to make heaven on earth invariably produces hell." One person's paradise is another's prison. Attempts to enforce an ideal only lead to tyranny. As we shall see, the freedom to choose is an integral aspect of the approach philosophers and researchers suggest to achieve the best for humanity.

Attempts to exert societal control usually involve some enforcement system, such as through law (with penalties) or through other means in non-democratic societies. The framework for laws in a society is typically enshrined in a constitution, which have been viewed as a vital aspect of civil society. Yet, a constitution is not sufficient, the principles of the constitution must be enacted in everyday life. A reading of the constitution of the Soviet Union and its guaranteed rights is enough to show that a constitution by itself is no guarantee of freedoms or democratic ideals.

The tensions between freedom and the controls needed to maximize long-term public good can be resolved through shared, collaborative action. Democratic societies attempt to manage this tension through various means, with varying degrees of success. In an ideal society the self-management of individual interactions would be achieved by the citizenry through free will, rather than through the imposition of law (outside the individual) or threats of force to achieve desired ends. It is necessary to help citizens develop the skills of self-management and collaboration needed to enact a democratic society.

Self-governing and reflective action

Kohlberg's (1983) stage theory of moral development proposes that during their lifetime individuals go through a predictable series of stages of advancing understanding of what is "right". Some will never reach later stages, and will remain below the penultimate stage for their entire lives. Following is a brief summary of Kohlberg's stages.

Stage 1: Literal obedience to rules and authority, avoiding punishment, and not doing physical harm

Stage 2: Acting to meet one's own interests and needs and letting others do the same. Right is also what is fair; that is, what is an equal exchange, a deal, an agreement.

Stage 3: Living up to what is expected by people close to one or what people generally expect of people in one's role as son, sister, friends, and so on. "Being good" is important and means Having good motives, showing concern about others. It also means keeping mutual relationships, maintaining trust, loyalty, respect, and gratitude.

Stage 4 : Fulfilling the actual duties to which one has agreed,
Laws are to be upheld except in extreme, cases where they conflict

with other fixed social duties and rights. Right is also contributing to society, the group, or institution.

Stage 5: Being aware of the fact that people hold a variety of values and opinions, that most values and rules are relative to one's group, these "relative" rules should usually be upheld, however, in the interest of impartiality, and because they are the social contract. Some non-relative values and rights, such as life and liberty however, must be upheld in any society regardless of majority opinion.

Stage 6: Being guided by universal ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principle. Principles are universal principles of justice: the equality of human rights and respect or the dignity of human beings as individuals. These are not merely values that are recognized, but are also principles used to generate particular, decisions.

As individuals grow through the stages their ethical foundation becomes less dependent on outside definition and more internally grounded. Habermas describes this as a "de-centering" of a maturing person's understanding of the world. At the final stage there is no need for laws, in the sense that a person at that stage of moral development would act in the best interests of a civil society with or without a set of civil and criminal statutes in place.

With sufficient members of a society at the final stage, one might achieve a state that has no need for laws, which has grown beyond lawfulness. In this state there will exist harmony, equality, ethical interaction, and plenty.

Habermas argues that what he calls "discourse ethics" is compatible with Kohlberg's developmental stages approach. Rather than looking at them as a stage of moral/cognitive development, he looks at them as stages of interaction, as people learn to interact with one another through a deepening of discourse.

Thus advancement between the stages is achieved by learning to interact with one another more effectively.

How to get there

To accomplish this level of skill among large numbers of people, there will need to be a broad attention to the details of everyday interaction. But these skills are not common, and it is infeasible to expect that people busy learning the skills needed in their own life's work would be able to take the time to dedicate study and practice elsewhere. What is needed is a means to educate and facilitate interactions that does not yet exist. The development of this type of system can be done as an extension of internet based technologies. Resources required for its development would be on the order of those needed to develop Wikipedia. I am calling this - the dialogic web.

Building the dialogic web

The dialogic web is a system designed to help people interact more effectively. It will shift society by helping people be more collaborative, reflective, and reducing coercive interactions. By changing interactions, the way people talk to one another in everyday life, humanity will be able to steer society into the future.

Predicting the future

Steering society, predicting and controlling it on a grand scale has long been the stuff of science fiction. For example, Isaac Asimov imagined psychohistorians who were able, through small interventions, to steer the future of a galactic empire. Steering society's future, whether for humanitarian or personal / political gain, is an attractive aim. The enactment of laws, attempts to maintain or institute a particular

culture (e.g., Iran's morality police), and threats or actual use of force are all means to that end. However, as social unrest and revolutions have shown, coercive tactics tend to be unstable in the long term. These instabilities highlight the fact that social structures are complex and dynamic networks. However this doesn't mean that they are not controllable. Recent research (Ruths and Ruths, 2014) indicates that complex networks, like social systems, have key points of control. Work in organizational theory and philosophy has provided some intriguing insights suggesting the use of language, or, more broadly, the exchange of meaning, is a potential point of control. .

Attending to language

If true this means that attending to the use of language in everyday life could be as important to steering the future of humanity as other, more "technological", endeavors. While billions are spent researching lasers, electronics, materials sciences, etc., there has not been a similar focus on the way that individuals within societies interact to shape the future, and how that might be scientifically investigated. There has been a tendency to focus on improving individual learning and performance. There has also been research on the use of language in organizational change, for example, how it is used to instill a vision (e.g., Ford's "Quality is job one"). But there have been inadequate tools to gather, analyze, and intervene into the distributed management of meanings that take place in groups, organizations, and society.

Developing tools to do this means moving focus to the "intersubjective", that is, the relationships and interactions that exist between individuals. Developing the tools and research to understand and assist interactions would help move everyday conversations from a craft to science. What sort of science might this be?

Chaos Theory

Organizational researchers have often used metaphors from complex systems, such as strange attractors, to describe the dynamics of organizational interactions. For example, Stacey (2003, p. 44) writes "Strange attractors are reflected in patterns of behavior, that is, shapes in space or movements over time, which are never exactly repeated but are always similar to each other" while describing human behaviors.

Research in organizational dynamics includes descriptions of patterns of interactions. For example, Chris Argyris (2011) described what he called "traps", patterns of dysfunctional interactions that are common across many organizations and which are hard to escape. These patterns are often associated with the need for self-protection and the desire to accomplish goals. Argyris described several "governing values" that led to these traps, which included "maximize winning, minimize losing", and "define goals, and try to achieve them". When these values are held at the individual level, so that an interaction is characterized by one or both parties trying to define their own goals while beating the other, interactions between the two are prone falling into an "organizational trap". For example, attempts by management to improve performance will often be countered by labor's moves to preserve job security. This can lead to a cycle of distrust and behaviors that harden beliefs about either side and make the dynamic difficult to escape.

Argyris suggests an approach to dialogue to keep from falling into these traps. This removes the focus from individual characteristics and the use of motivation or coercion to control behavior and shifts focus to transforming the way language is used.

Redesigning interactions

While many scholars have provided insights into the transformational use of language, three may exemplify some common threads of thought. A brief outline of the ideas of three seminal thinkers in the field, Bakhtin, Habermas, and Argyris, illustrates the development of basic ideas about language and how it might be used to steer humanity's future. This brief description will focus on Mikhail Bakhtin's

conception of the "dialogic", Jurgen Habermas' "Ideal Discourse", and Chris Argyris' "Model II Behavior".

Bakhtin's Dialogic

Mikhail Bakhtin (1895-1975) was a Russian philosopher, literary critic, and semiotician. One of his many contributions was the concept of the "dialogic" (literally, "double-voiced"), which describes a characteristic of human interaction that involves listening to the multiplicity of meanings invoked during an exchange (1981). Dialogic interactions explore the multitude of dimensions of meaning embedded in a conversation ("polysemy") rather than attending to a single definition, and in them meanings are created during the process of dialogue and engagement. These meanings reflect on and spring from the previous experiences of the participants as much as the ongoing conversation. This is in comparison to the "monologic", which demands a single authoritative meaning be assigned. Dialogic interactions thus tend to be open, and opposing viewpoints can each be seen to be true in their own way.

They also are more likely to facilitate collaboration, since multiple meanings are accepted, and there is not a sense of one side "winning" an argument. The concept of "dialogic interaction" has had a broad impact on philosophy, social psychology, and educational theorists, and provides a broad foundation for designing collaborative conversations.

Habermas

Jurgen Habermas (born 1929) theory of communicative rationality delineated the concept of "validity claims", which supports "rational argumentation" as a means to collaborative consensus building. This is accomplished through a lack of coercion, in comparison to "power claims" which can be seen as related to Bakhtin's "monologic", which demands an authoritative meaning. Communicative rationality is an intersubjective approach that uses a noncoercive, unifying, and consensus-building form of discourse ("ideal discourse") to cooperatively design plans for action.

Habermas connects communicative rationality to the development of democratic society, and says that key conditions are necessary for ideal discourse in the public sphere.

1. Those with the competence to speak and act are allowed to participate.
2. All participants are allowed to introduce or question any assertion and to freely express their attitudes, desires and needs.
3. No one may be prevented, through internal or external coercion, from asserting their rights to the first two conditions.

Habermas further developed these ideas into the concept of "discourse ethics", which makes the connection between discourse and moral ethics and has discussed the application of discourse ethics in various spheres, including democracy and the legislative process. (1990, 1995) Some key outcomes of discourse ethics are building shared understanding, welcoming and integrating diverse perspectives, and planning for actions to be taken to achieve desired outcomes.

Habermas suggested this occurs through a process called "communicative action", where participants collaborate on decisions and coordinate action based on the validity and merit of goals established through a shared understanding. This is in comparison to "strategic action", where one side may use the desires or fears of the other as a form of manipulation to motivate certain behaviors that the other would not freely choose. It was suggested that communicative action might achieve a kind of democratic utopia where the process of communicative rationality would be used to develop important group decisions.

Critics of Habermas' approach have cited the effort to achieve such consensus as daunting, since the time required might be excessive, and also criticized his work as implying an idealistic world without evil

actors. A desirable adaptation of communicative action would move toward Habermas' utopia without assuming away evil or becoming mired in unending discussion.

Argyris

Chris Argyris (1923 – 2013) made a distinction in some ways similar to Habermas' distinction between strategic and communicative action, though he used the terms "Model I" and "Model II". Argyris called his approach "action science", which describes a scientific, hypothesis-testing approach to interaction that a) surfaces differences in meaning, b) tests goals and outcomes, and c) applies a method akin to peer review to determine "truth". Similar to Bakhtin and Habermas, Argyris advocated the exploration of meanings and reasoning to building shared understanding. And, like Habermas, he linked the individual to organizational outcomes through the - both observable information and veracity testing of conclusions, and welcoming/integrating diverse perspectives (1982)

"Model II" behavior, as described by Argyris, is based on the governing values of valid information, free and informed choice, and internal commitment to a course of action. It involves shared control and participation in the design and implementation of action, and encourages surfacing conflicting views. In addition, its use includes the public testing not only of assertions, but also specifically of evaluations made about those with whom one engages in interaction. Outcomes of Model II include increased "double loop" learning, that is, learning that occurs from challenging underlying assumptions and which leads to the transformation of action.

Among Argyris many contributions is the development of an approach to conversational intervention that is actionable, that is, which is described specifically enough so that it can be re-created by others, while also being general enough to apply to a broad range of situations. This includes a model of a normative approach to conversation using the "ladder of inference", which describes the connection between observation and abstract conclusions.

Also, through a focus on the specifics of interaction Argyris pointed out the importance of intervening "in the moment", when the conversation is most likely to be remembered and the intervention will be most powerful. Interventions in the moment of action are necessary, according to Argyris, because individuals have an "espoused theory" (about what should be done) that is often in conflict with their "theory-in-use" (what they actually do), and they are usually unaware that there is a difference between the two. By intervening "in the moment of action" participants can be made aware of the contradiction and learn to change behaviors.

Integration: Attributes of a dialogic web

The work by Bakhtin, Habermas, and Argyris illuminate how the use of language might be transformed in order to steer humanity toward its ideal state. The major features of this transformation include, as much as possible, giving people freedom of choice through non-coercive interactions, de-centering decision-making through the distribution of power over decisions to those affected by the decisions, the active examination of beliefs and reasoning, and attention to the multiplicity of meanings embedded in a dialogue, with the intent of collaborative sense-making. The outcome of this transformation on human society will not be perfect, in the sense of creating a utopia, but it will be "better" in whatever way is defined by the participants. To aid this transition, a dialogic web will need the ability to intervene in the moment of action and be able to include contextual data such as the hierarchical status of participants involved in a conversation. The next section briefly describes some of the attributes of such a system.

Software attributes of the dialogic web

The dialogic web is an architecture for personal dialogic agents that are designed to listen, respond, and help humans reflect on their actions and learn to act in ways that incorporate the principles of dialogic

action, communicative rationality, Model II behavior, or a related approach to interaction that can be shown to improve the human condition.

Personal dialogic agents are an extension and modification of the existing technologies for the semantic web, which uses agents to complete tasks for users by sharing information. As is the case for agents in the semantic web, personal dialogic agents will engage in foreground communication with owner and others to respond to questions, provide guidance, and gather information. There will also be background communication between agents, so that they can be aware of demographic, hierarchical, and other salient characteristics of the human users, including personal reactions to specific situations and preferred modes of behavior. The agents and all the information they hold will be owned by their human users, who will control preferences for what should be shared and when it would be shared. Each personal dialogic agent will connect to the user through a smartphone, probably with a bluetooth headset, or through something like Google Glass. When two human users engage in a conversation the personal dialogic agents will each listen individually to what their user is saying. If permission has been given by both users to facilitate the conversation the agents will work together to build a transcript of what is said. They will also share as much contextual data as has been permitted. They can then use the information they have along with a knowledge base of procedures for facilitation to intervene in and guide the conversation if the knowledge base indicates that they might be of assistance.

Each personal dialogic agent will be able to build an idiosyncratic model of their users' individual motivations, personality, goal orientations, as well as the emotional and other meanings of interactions and experiences the user engages with. The personal dialogic agent will be eventually able to predict contexts where the user will experience difficulties and, if acceptable to the user(s), guide one or all through those difficulties in a way that will help them learn to manage better in the future. As technology advances, humans will continue to have ever more conversations with computers. Rather than the dehumanizing and isolating interactions with computers that are now commonplace, personal dialogic agents will converse with their users in order to help them become more connected, just, and human in their dealings with other people. Each dialogic agent will be tailored by its user to help meet his or her own personalized needs.

Development of the Dialogic Web

The development of the knowledge base for the dialogic web is not something that will be accomplished by a small group of users. It will require collaborative effort between experts in organizational behavior, computer science, psychology, and philosophy. A medical model of treatment development will allow intervention modules to be developed, tested in experimental studies, and released into the user space, with statistical evaluation of efficacy at each step along the way. Individuals will also be able to provide feedback on the outcome of a particular module, just as they can now give feedback on how well a software application is working. For transparency an open source development approach will most likely be needed.

Methods of certifying the efficacy of modules in the knowledge base will be needed, most likely a combination of a research organization like the National Institutes of Health and user ratings like the review system common on many shopping web sites. A clearinghouse of intervention modules could be accessible for search and download from the web, and users would be able to anonymously download modules.

The development of the dialogic web will not happen overnight, but will be a process of developing interventions, evaluating and mapping reactions, then adjusting and re-developing interventions. However it is possible that it can begin to offer immediate, personal benefits to its users without a lengthy

development process. This will speed adoption as potential users begin to see how others have benefitted from their personal dialogic agents.

Dangers

A dialogic web would be a powerful thing, too powerful to be owned by any one group or government. Misuse would lead to access to uncountable personal conversations, as well as deep knowledge of the personal motivations, fears, and habits of countless individuals. This information could be used for harm or manipulation if access and the architecture of the system are not strictly controlled through a transparent process. To reduce these dangers, the dialogic web should be controlled by an unaffiliated nonprofit, which uses open source software development to ensure scrutiny of the system as it grows.

Conclusion

With the broad availability of the dialogic web to facilitate "discourse ethics", humanity as a whole will be slowly able to increase its overall level of moral development. While this will not immediately translate into far-reaching improvements in the human condition, once development begins, change will inevitably follow. Ideally, a state beyond lawfulness will result. This maturation of humanity will not lead to a "utopia" as has been envisioned, but it will make the world better, as humanity steers its own future.

Like Wikipedia, the development of the dialogic web is an endeavor that will require sustained collaborative effort over a number of years. Fortunately, the infrastructure and skills needed to make it a reality are already in place. It is just a matter of some people making a concerted effort to bring it into being. The result will be worthwhile as people make use of it to change the way they interact. Through the sum of millions or billions of people learning to become better, a global transformation of humanity will begin to take place.

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