## July 4, 2021

## The Declaration of Interdependence

When in the course of human events, it becomes necessary to dissolve legacy theories and methods which have disconnected people, technology, and work, and to assume a complementary station of people and computational machines, a decent respect to the opinions of people requires that they should declare the causes which impel interdependence.

We hold these Truths to be empirically assured:

That computational systems are tools, instituted among people, deriving their just powers and value from the consent and desires of the people.

That people are endowed with a capacity to be adaptive and resilient.

That people are endowed with a capacity to achieve expertise.

That computational tools must empower people to refine and expand their capacities.

That whenever any form of procurement or design philosophy is destructive of these ends, preventing the achievement of these ends, it is the right of people to alter it, and to institute new policies and principles to effect improved systems and greater potential.

Technologies harass people and eat out their substance. All experience hath shown, that people are more disposed to suffer user-hostile computational systems, while evils are sufferable, than to right themselves by refusing the designer-centered forms to which they are forcibly accustomed. Such has been the patient sufferance of the workers. When a long train of work-arounds and kluges, pursuing invariably the same object evinces a desire to reduce them, it is the peoples' right, it is their duty, to institute work-centered guards for the future.

Such is now the necessity which constrains us to alter the systems of procurement. Prudence, indeed, will dictate that computational systems established on a notion that automation is autonomous, a notion of levels of automation, or a notion that good design derives sufficiently from task allocation, should be changed for heavy and persistent causes.

We witness a history of expenditures bearing unintended and unfortunate and usurpations, all having in direct object the establishment of an absolute tyranny of designer-centered design by refusal to assent to Empirical Truths that are the most wholesome and necessary for the public good, the expansive body of evidence indicating the mythical nature of common misconceptions. The clear evidence that more automation decreaseth not the need for manpower, but makes urgent the need for more human expertise.

The clear evidence that closely held models are misleading, reductive, and inevitably dangerous.

The clear evidence that the insertion of technology changes the entire work system, leading to new demands, new responsibilities, and new forms of error.

The established, clear and Right laws of cognitive work systems.

The need for command by technologists to be shared equitably with cognitivists and experimentalists.

Nor have experimentalists and cognitivists been wanting in attentions to these inestimable virtues. They have warned innumerable times of the consequences of designer-centered design and its unwarrantable jurisdiction over people. They have appealed to justice and magnanimity, that computational systems nevermore interrupt connections and correspondence.

In every stage of these oppressions, cognitivists and others sharing concern, have petitioned for change in the most humble and rational terms. Repeated petitions have been answered only by repeated injury issuing from places cloistered and distant from the depository of the actual workers, for the sole purpose of fatiguing them into compliance with designer-centered design.

It is our duty to throw off such a concept and to provide new guards for future security, laying its foundation on such principles and organizing its powers in such form most likely to affect their Safety, Happiness, Growth and Productivity.

An inestimable virtue is Interdependence Analysis, being the manner in which computational systems are designed according to a notion of ways in which the people depend on the computational systems and ways in which computational systems depend on the people.

We, therefore solemnly publish and declare, that people and computational systems are inevitably interdependent; that computational systems shall not substitute for people, but act as valuable tools; that the delivery of a computational system be accompanied by convincing empirical evidence that the tools are understandable, learnable, usable and useful; and that the procurement process shall be accordingly changed. As Friends in Peace, we pledge to each other our honor.

| MACHINES  |   |
|---|---|
| Are constrained in that   | And they need people in order to  |
| Sensitivity to context is low and is ontology-<br>limited                               | To keep them aligned to the context.  |
| Sensitivity to change is low and recognition of anomaly is ontology-limited.            | To keep them stable given the variability and change inherent in the world.         |
| Adaptability to change is low and is ontology-<br>limited                               | To repair their ontologies.   |
| They are not "aware" of the fact that the model<br>of the world is itself in the world. | Keep the model aligned with the world.  |
| PEOPLE  |   |
| Are not limited in that   | Yet they create machines in order to  |
| Sensitivity to context is high and is knowledge-<br>and attention-driven.               | Help them keep them informed of ongoing events.                                     |
| Sensitivity to change is high and is driven by the recognition of anomaly.              | Help them align and repair their perceptions because they rely on mediated stimuli. |
| Adaptibility to change is high and is goal-driven                                       | Affect positive change following situation change.                                  |
| They are aware of the fact that the model of the world is itself in the world.          | To computationally instantiate their models of the world.                           |

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