

The Element of Play and its Relationship to Technological Work

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Johan Huizinga published his first version of the work Homo Ludens in 1944. In it he posits that play is pre-human) cultural in that animals “play”, but that human play serves several sociocultural purposes. In part play serves to:

- discharge energy,
- provide relaxation,
- allow imitative instinct,
- provide a competitive outlet,
- provide an outlet for “harmful” impulses, and
- allow wish fulfillment.

This list is not inclusive. Huizinga also defines play as follows:

“a voluntary activity or occupation executed within a fixed limit of time and space, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is different from ordinary life”

This definition asserts that play has the following characteristics:

- fixed time limit,
- fixed spatial limit (special court, playing field or boundaries on conventional space),
- proscriptive rule set that is binding,
- limitations are freely accepted.

The affect of these limitations is to set play off from ordinary life so that it is perceived as being different. There is no linkage at this level of play with fun. Play can be, and often is, quite serious. Huizinga also points out that play in Western cultures is often associated with social or religious ritual.

It is just this set of defining limitations, and the fact that play is set off from life, that provide its connection with technological work, and particularly with computer programming. If we use computer programming as an example of technological work, we can see what this connection is. The most striking similarity is with regard to a proscriptive rule set. Computer languages or programming environments provide highly specific, bounded rules for accomplishing tasks. If we are programming in a specific language, we are limited by the syntax and semantics of that language. These provide a rule set which may be complex, but which is defined completely. Each language may provide a different complex rule set. This is part of the appeal of this work. If you understand the rules, even the most complex is doable (or definably not doable). The better you understand the complexities and nuances of the rules, the easier programming becomes. In addition, programming usually has specific time limits put on it. Programming deals with the closed world of the interaction of a task with a proscriptive, special purpose programming language. The programmer, depending on how well the understand the limitations imposed by this system, can create their own complex, closed world (an application, game or model) which addresses the task. In this sense programming is separate from “ordinary” life. The only characteristic of play that does not seem to be met by programming is limitation in space. Programming then is characterized by:

- limitation in time,
- proscriptive rule which is binding,
- limitations freely accepted,
- the creation of closed world models, games or applications which are different and/or separate from ordinary life.

Much technological work such as engineering design, process development etc. could be characterized in the same way.

There is an implied aspect of play that makes the connection even stronger. The characteristics of play, especially the proscriptive rule set which is both binding and freely accepted, indicate that a complete knowledge of the rule set is both desirable and necessary. The drive to learn a proscriptive rule set completely in order to create closed worlds or models implies that control is an important aspect of technological work. The creation (i.e. defining the rules for) and control of closed worlds which require high levels of expertise to understand and manage is a very powerful characteristic which serves to both define and limit technological work.