

Thoughts on Fluidtime

A short history of time

Michael Kieslinger, 2001
www.fluidtime.net

Pre-clock era

Before the clock was invented, people were living in nature and oriented themselves with the cyclical time flow of the cosmos. Nobody would have thought about asking for the time. Work didn't last for eight hours but until either the fieldwork was finished or the sky got dark. This was the era of event time. People started and ended events when the time was right for them. Without the structure of the clock, it was difficult to coordinate activities. There were basically 2 times a day that could be used as references: sunrise and dawn. (Levine, 1997)

People's concept of time was that it was a cyclical structure. Time was a rhythmical form of organisation that didn't know progress and repeated itself. The term "progress" wasn't used until the beginning of the Industrialisation. (Geissler, 1999) Further significant for this era was a conceptual understanding of future. The word "future" as well as the word "progress" became part of human language in the 18th Century. This understanding of time can be imagined best as an ascending line (Geissler, 1999).

Clock era

In Europe, the transition from the pre-clock to the clock era happened at the end of the Middle Ages. Monks first invented clocks in order to structure prayer times. (Levine, 1997) Many early clocks didn't have hands and hour indications, but instead used acoustical signals to count time. Tradesman and mechanics adopted the clock and brought it into cities. In the beginning each city ran on an independent clock and hence had its "own time". With the introduction of train travel in the 19th Century, it became important to standardize schedules and a unified chronology was adopted. (Levine, 1997)

The use of clock time has dislocated our relationship to event time and new time patterns have emerged. Because we no longer rely on nature or our own biology to decide when to begin and end our activities, we have become less attuned to both the outside world as well as our own bodies.

Artificial light also played a large role in affecting the modern use of time. The inventions of gas and electric lighting have significantly changed our relationship with time. People are able to pursue activities during the evening and night hours that once could only be conducted during daylight.

Post-clock era

Today we are facing a transition from the clock to the post-clock awareness of time. The Victorian principle that home, family and work are separate is changing. The fact that clocks are disappearing from public places is evidence that clockwork mechanisms are becoming metaphors or symbols of the past. The clock is no longer the only criterion for time orientation. We learn to understand that time doesn't mean just watches, clocks, or the oscillations of caesium atoms. Time is more than being exact. We experience more and more that the clock is a separator between people and the actual experience of time.

The central clock time that has been the organising principle for many centuries is being replaced by a multitude of times in our networked society. In the clock era, time was detached from nature and linked to money. In the post-clock era, this principle will be optimised through an increasing flexibility of the calculation of time and money. Flexibility is better than standardisation.

This flexibility means that everyone can live by his own time. For example, taking breaks when one feels tired and working when one feels productive. Traditional boundaries between work and home, between night and day, weekday and weekend are dissolving. The web allows us to go shopping any time, even consult doctors 24 hours a day. Technology has also made work portable, allowing it to merge with our personal lives.

Nowadays we have to constantly decide about our own time and that of others if we want to coordinate ourselves with them. As we are able to design our own time more and more we become time editors.

In the 24/7 society, anything can happen, anytime, anywhere. There is an opportunity to return personal time to individuals, to allow them to decide when to do things. When things can happen all the time, then people have the power to decide when things can happen. (Kreitzmann, 1999)

The break-up of joined time demands is seen as liberation. It is also seen as liberation from the ethics of punctuality. Nowadays, people can react more flexibly and adjust more easily to upcoming changes. People are basically liberated from the abstract pressure of their agenda or organiser. People use mobile telephones to change the time or place of a meeting. Although this may not sound like the epitome of freedom in our lives, "such simple changes shape living into an incessant flow rather than a succession of fixed points." (Kreitzmann, 1999, p.37)

Why time-saving inventions may not save time but can give people more control over their time.

Although new technologies allow certain tasks to be completed more quickly, it doesn't mean that people have more time or feel less stressed. First of all, one has to make a distinction between appointment pressure and time pressure. The flexible understanding of time, in combination with new networking technology, allows us to reduce the pressure of appointments since we are more able to shift things in favour of our personal time flow. However, time pressure can be reduced only by decreasing one's duties. Doing less, working less, and consuming less are all important factors to lessen time stress.

It is characteristic for our society that people steadily increase the amount of things they want to achieve. As soon as we can do a certain set of tasks in a shorter amount of time, we will increase the amount of tasks instead of down-shifting time and spending more idle time. Levine writes that it is one of the great ironies of modern times that, with all of our timesaving creations, people have less time to themselves than ever before (Levine 1997). For example, the invention of the washing machine or vacuum cleaner did not decrease the time we spend cleaning our homes. Instead, our standards of cleanliness rose and we spend as much time on housework now as we did before the invention of these appliances.

People who tend to have a high activity level and speedy lifestyles are not necessarily more likely to be candidates for the "hurry sickness" (Levine, 1997, p.23) than people who prefer slow tempos. The development of "hurry sickness" occurs when one's personal temperament doesn't match his environment. In fact, achieving a balance between the pace of work life and the rest of life may be more important for psychological and physical health than finding a low-pressure environment to work in. (Levine 1997)

There is a social tendency to busyness, to activity, to bustling. Stress and the feeling of being hurried is very much a personal and social phenomenon that can't be solved by technology. Instead, technology can give people more control over how they want to spend time or maintain their own personal flow.

Why "chaotic" time can be productive

Monochronic time is based on the steady beating of a universal oscillator; one task starts after the previous one is completed. In this time system, people manage time linearly. If they have several tasks to do, they link them up according to certain priorities, put them into a schedule, and work according to this schedule.

This traditional time management system works perfectly for some people. It is an appealing system for those who see time in a linear way, those who work predictably within time frames and finish projects as they are scheduled. Yet for many people, the traditional way of managing time doesn't work very well, and becomes frustrating and unproductive. These people spend time in a polychronic way. They rely on intuitive knowledge and on complex relationships that can't be structured within a step-by-step plan. The characteristics of polychronic people are that they tend to do many things at once and are easily distracted by interruptions. Compared to the monochronic people who are committed to their work, polychronic people are usually more committed to people and human relationships. They tend to adjust their plans more often and easily than the do others. (Cooper 1994) One way is not inherently preferable, but people are clearly divided in their approaches to completing tasks and organising schedules.

Raising children and doing housework forces one to do things in a polychronic way. Babies can't be told when to be hungry or when to need attention. In this situation, flexible time expectations are helpful. Trying to adhere to a pre-planned clock schedule won't work. (Cooper 1994)

Because we live in a society where knowledge is one of the most valuable assets, our communication and exchanges with other people are of key importance. The more we deal directly with people, the more polychronic we must

become, since this allows us to change our schedule according to other's needs. Activities such as winning the trust of a person or resolving an argument can't be scheduled as easily as more mechanical tasks.

A monochronic work culture is not necessarily more productive than a polychronic one. Important meetings or a flow of inspiring ideas might be cut short just to keep the schedules. Some people also think that fitting as many activities as possible into the smallest amount of time is the most efficient way to work. In fact, this may lead to a reduced quality of work, a narrow span of vision, and increased tension and worry. If we rush things, we also tend to miss the opportunities for creative and satisfying work. (Cooper 1994)

It is important that we become aware that there are different ways of spending time and that we can choose between them. This awareness can help us to spend our time as we wish, so we are able to avoid becoming "slaves" of time. (Cooper 1994)

Why people hate waiting

The Greeks have two words for time, "Chronos" and "Kairos". Chronos means absolute time: linear, chronological and quantifiable. Kairos, however, means opportunity, the chance and mischance, different aspects of time, qualitative time. If you go to bed because the clock says it's 10:30, then you are adhering to a chronological time system, whereas if you go to sleep because you're tired, you are following kairological or event time.

All humans are born with a sense of event time. Before they shift to a more clock-based way of doing things, people listen to the body to tell them when to do things. Babies, so much in touch with their internal needs, are perfect examples of humans tuned with kairological time. (Kreitzman, 1999)

For many adults it's quite difficult to live in event time and also live according to the clock. When people are at home or on holiday they are more apt to put away their clocks and live according to their inner time system.

Time can have different qualities. Quality time for instance has a different meaning and intensity than working time. Time is context dependent and there are different ways in which it can be used. Sometimes we lack it and can't have enough of it, while other times it goes wasted. (Kreitzmann 1999) How we design and use our time, in the end defines the texture and quality of our existence. (Levine 1997)

The phenomenon of taking pleasure in losing track of time is well described by Mihaly Csikszentmihalyi. In his study on Flow Csikszentmihalyi (Csikszentmihalyi, 1996) describes nine "elements" that characterise an enjoyable experience. Describing the eighth element he writes "the sense of time becomes distorted". When people experience flow, they forget about time, and hours pass by being experienced as seconds.

This may also explain why people hate waiting. If the flow is experienced as enjoyable any distraction from it may well cause discomfort. In flow, people forget about time and their surroundings because their activities are entirely absorbing. If people want to complete a simple task like buying food at the supermarket, their aim is to get the food and go home. The aim is not to hang out in the queue of the cash register.

Waiting involves a temporary re-definition of power. The person waiting is less powerful than the one who makes him/her wait. Making someone wait establishes a hierarchical demarcation. When people wait, time becomes a resource, and the one who waits has no control over it. In this context two questions are of importance: Does the individual control over his/her time and how accessible is the time of others/businesses?

The clash between personal time flow (getting food, going home) and the public time flow (standing in a queue) is experienced as disturbing. People have to continuously adjust their kairological or personal time (kairos, event time) to the public time (chronos, clock-time). Public time flows are based on other people, services or processes that have their own timing.

Clearly all services can't be available to all people all the time. For example, buses can't have person-tailored schedules and some queues are unavoidable. In these cases it has proven successful to give customers time information. Conventional timetables are not always the best way to accomplish this link because they are based a strict and rigid time frame that doesn't have much flexibility from an individual's point of view. Other examples are count-down signals on computers for long processes, waiting times signalling in underground train stations or the queue numbering when waiting on the phone.

There is a limit on how far a person can adapt himself to public time flows and vice versa. People with a higher inclination to their own flow will experience this dichotomy more dramatically than others. Levine (1997, p.217) asks:

"Can we design environments that are capable of adapting themselves to the preferred rhythms of individuals?" In a connected society we have the opportunity to develop new ways for people to synchronise their personal time flow to that of the events and services around them.

Notes

- Csikszentmihalyi M., *Creativity, Flow and the psychology of discovery and invention*, New York, HarperPerennial, 1996
- Levine R., *A Geography of Time*, New York, Basic Books, 1997
- Kreitzman L., *The 24 Hour Society*, London, Profile Books, 1999
- Geissler K. A., *Vom Tempo der Welt*, Freiburg, Herder, 1999
- Griffiths J., Pip Pip, *A Sideways Look on Time*, London, Flamingo, 1999
- McGee-Cooper A. and Trammell D., *Time Management for Unmanageable People*, New York, Bantam Books, 1994
- David-Steward D., *Is the tail wagging the dog?*, unpublished article, Newcastle Business School, UK