Information, how it gets precious?

How to keep Information as source of joy?

Vienna, in May of 2014

Franz PLOCHBERGER
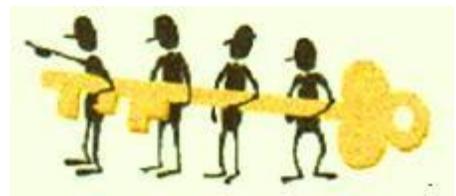
Information Scientist

admin@plbg.at

http://www.plbg.at

1 Abstract

In our Age of Information the term Information is one of the most used words. Some Information Scientists tried to find a common definition. **PLOCHBERGER Franz (2012)** tried to fix it in his "Information scientific Axioms". He used terms of **Wolfgang HOFKIRCHNER** or **Raphael CAPURRO**.
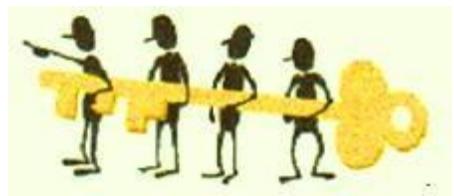
The author started a new research impact: „IT-Orientation towards Human Being". The aim of this research is to find out significant terms and to evaluate a scientifically usable paradigm under this surrounding topic. The orientation on human needs is necessary, because we have to make a difference between human cognitive information evolution (technological) and human biological evolution as species, which is much more slowly.

In chapter 4 human abilities to manage Information will be showed. In the chapters 5 and 6 the author tries to find topics and permanent valid Information scientific terms for the usage of Information in a precious way for human beings in future (e.g. in a rising amount of Data (Big Data) or moving Data with electronically speed on worldwide spread networks).

Information Science is not a narrow science; it touches Philosophy, Mathematics, Physics, Psychology, Sociology, Economy and System Sciences. These sciences contain all interesting theories.
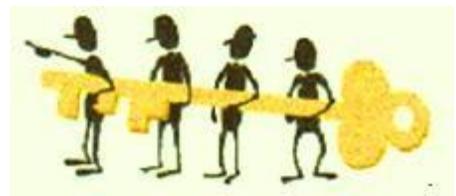
The actual trend is that the changing's of new Information-instruments (Desktop, Laptop, Smartphone or Mobile Touch Screens) seem to fascinate and stimulate customers. If we don't try to find scientific backgrounds we get in dependence of some worldwide single IT-companies with commercial interests only.

We have to ask: Do we know already the most important values in Information Science for future? Is it sure that IT-Orientation towards Human Being is able to surround the most precious parts of Information Science and to set definitive orientation points towards the human being? The orientation towards human being has borders – by human being. But no restrictions are definable in complexity towards the machine side.

2 Content

3 Introduction

What is *precious* Information? The unifying of the term Information in the last years of Information Sciences brought a satisfying definition. Now we ask: How can we get that as *precious* as possible for the human being?

Information is including three general parts:

- the **subject** (human being or lower developed organism with consciousness) as receiver, maintainer or sender

- the **Information** in both directions between subject and object

- the **object** (living or material) as receiver, maintainer or sender.

If we search *precious* Information, we should include also the length of the **time interval** in which it is valid. It can be one sentence or even one permanent single significant stand-alone-object (e.g. one chunk of a precious material like gold or rear earth). It can be Information about a complex new system or organism, never seen before and never understood before.

In our case we try to use the attribute *precious* for long termed Information, an amount which needs a lot of motivation for dealing with special objects and in a lot of time. In worst case these could bring a sick mental dependency or may bring wrong (not real) content. But here the author searches especially Information which can be *classified* as bringing most positive, true and healthy results for the human being.

Out of Psychology we know already some general rules in getting human- positive results e.g.

- stress research : How to get Eustress only?

- the Flow phenomena, found by **CSIKSZENTMIHALYI Mihaly (2003)** or

- research results about "Homo Informaticus" found by **TRIMMEL Michael (2003)** et alias**.**
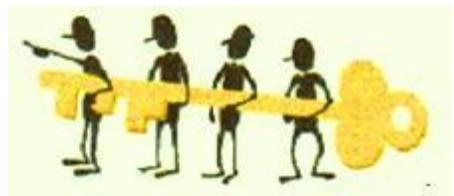
4 The human being is a permanent centre of Information

First of all we need some new information scientific agreements which are best in our time and seem to be very helpful in future. Information as **PLOCHBERGER Franz (2013)** defines it in a worldwide unified way is per se only definable if we bring Information into a fix relation to the consciousness of a human being. Only a human being (or every lower developed living subject) is able to use Information. No object in the world has any informational value if no human being recognised it before or is just finding it.

Information is no material entity, no physical or organic object or subject; it's an immaterial entity, term and value.

Information gets materialistic if we try to store it in form of texts, pictures, audio-files and combinations. Than we can speak in a common unified way of Data (or *stored* Information).

Information is a living term. A dead organism can't recognise, treat or produce Information. Information about every dead object can be generated only by and in a living organism with possibly less or high developed own consciousness.

Information in the meaning of **C.SHANNON** (Theory of Information) is in this new unified way an amount of special structured and stored Data (digital or analogue signals). See **PLOCHBERGER Franz (2007).**

The human being is till now the highest developed organism with own consciousness. All other living organism's with own consciousness can manage only less amount of Information in simpler forms.

In that way the term Information gets usable in a scientific and common satisfying way. We can use a scientific defined term. This term has not more-valued interpretations, is now a permanent and is in all sciences uniquely usable. That's a little science- revolution!

Information can flow between

- human being and one or more objects in both directions (recognising or sending)
- two or more human beings in direct communication or even cooperation.
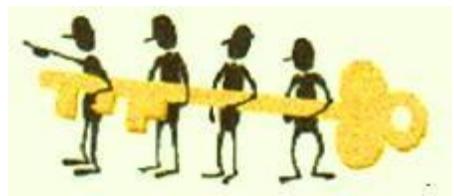
A human being is able to treat a maximum of Information by using all his biological and mental instruments (organs and senses). We (the human being) can produce this maximum of Information in dialogue with one or two other human beings ((**CSIKSZENTMIHALYI Mihaly (2004)**, second half) using our whole body, organs (brain) and all our senses.

So the **maximum of Information** is definable:

The flow of Information into, in or from a human being is than a maximum when the human being can use all his natural instruments: his whole body in form of his body language, his brain and all his senses (optically, phonetically, smelling, touching and tasting). This he can do in best way direct with one or two other human being.

From **Paul WATZLAWICK (1921-2007)**, an Austrian-American Communications Theorist the notes got famous:

- one cannot *not communicate* and

- one cannot *not influence.*

With other words : every human being gets, maintains or sends Information every moment **as long as he lives.**

How can we find criteria's of a precious, worthy Information in general? First of all we don't want to think about IT (Information Technology) - we think only on human needs.
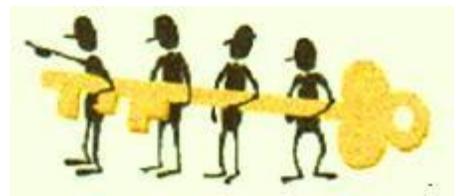
4.1 Topics and terms in human Information management

Starting a new Information connection can be described always in following steps:

   a) **(well) being** in natural surroundings

   b) **paying attention** to something interesting

   c) **building a mental relation** to that

   d) start a **selective exchange of Information**

   e) start a direct or common **communication**

   f) last not least start a direct or common **cooperation.**

From last chapter we know, the maximum of Information can be reached by using all our biological and mental possibilities (body language, brain and senses).

Building up cooperation is therefore the most *precious* Information exchange for every involved human being. All steps before need or treat not so much Information and are not in same long time *interesting* (= *not so precious).*

The **direct interhuman Information exchange, the direct personally dialogue in form of communication or even cooperation** is therefore the most precious one. Its value **rises with the time** it is valid.
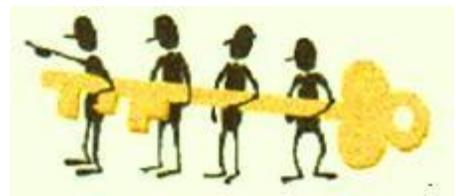
5 IT (Information Technology) in any form is a restrictive Information-transporter

IT never can reach the same quality of Information exchange as described in last chapter.

IT has only some special, for other reasons worthy properties:

- constant and **permanent equal stability** of Data

- **big amount** of stored and treated Data

- **fast electronically speed** of Data transport.

IT is per se best usable for generating, treating and producing of Data only.

It's a human ability only to store Information in and get Information out of Data. The human being has to define in this "complex machine" computer - how to *store* Information as Data or win Information out of Data. Data themselves can be treated by computers in best mathematically algorithmic way. Computers
are physical machines which follow mathematical und physical laws.

A possible huge amount of Data (Big Data) can't be read, learned and understood by human being in the same time as they can be produced and stored by computer. Therefore **Iteration** is a real necessary cognitive strategy for human till we understand all the included Information.

Machine Iteration is besides Sequencing and Jumping a fundamental Software construction element since the first appearance of programming (about 1945 by **Konrad ZUSE**) and common software (about 1970).

The **Human Iteration** is a legacy and true form of human learning (e.g.
written texts, books) and nothing new. The amount and complexity of texts can be very high or low an need Human Iteration.

The main difference between **Human and Machine Iteration** is that

- **human learn in every Iteration something new and more complex – in appropriate time,**

- **machines can do always the same only – but the amount of treated Data can rise very much and that in shortest time.**
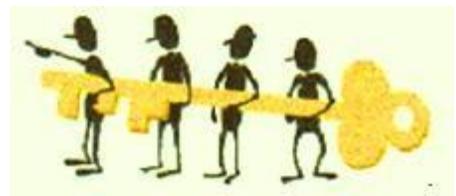
We have created tools to find out the most important included Information (e.g. Search Engines). But **human intelligence and creativity** is necessary for deeper abstraction of Information. That's known under the topic Data Mining.

In this part of IT It's not useful to set "all time valid rules" because the amount and structured forms of Data are very manifold. At the end of last century all specialists in applied IT tried to find Data-structures. Today no more common activities in that direction are state of the art. A huge amount of forms of structures und access-rules are found. They are existing in all object forms of our real world – no borders or permanent definitions in amount and variation are useful. That's an experience of our time.

Our new worldwide unified defined Information is coactive with a undefinable amount and variability of Data-forms. The effectiveness of Data-processing in time is rising, much more than human can recognise Information out of it.

Information recognition needs a human being. In Human Orientation of IT (HO) we have to form Data so that we can learn and understand them in the best way. There are no borders to human intelligence and creativity to find the best Software Systems to analyse Data and transform Data into a human understandable way.

By actual IT we lose amount of Information because we can't use all our body and senses. We use our fingers, our eyes and perhaps ears in most cases till now. Our direct dialogue partner is a dead machine-screen.

Under actual IT topics HCI (Human Computer Interface) or HCD (Human Centred Design) the problems between computer and human are surrounded on all levels from Universities down to using IT industry.

In the new impact HO (Human Orientation) of IT the author tries to create **IT- systems which use more action of our bodies and more of our senses, generally all our human abilities.**

We have to reduce the Data-processing-speed from the electronically level to Information-treatment on a human one. We should not over strengthen human abilities and try to find a permanent valid modus of **human-driven learning, reasoning and giving of Information**.

All that can't be done in definitive time limits. A legacy way is: describing a paradigm by setting single terms.
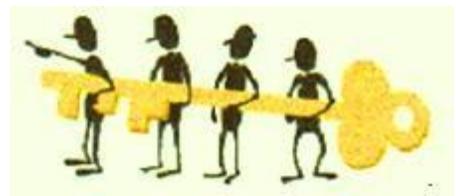
Information should be stored in a form that's **most tight similar to existing nature and physical world**:

- pictures as we see them,

- tones and voices as we hear them,

- by tools which can transform texts in spoken words,

- by tools which can transform human language in texts,

- by scribing tools which use handwriting and typing - in the same time by automatically changing's between both (manually concepts),

- in games which motivate to move our whole body,

- by objects which are touchable with our hands and

- by variable combinations of all of them.

In summary all these forms of stored Data should not be far away from genuine human Information forms.

The most worthy form of Data is that one which is nearest to the real form of Information. IT never can reach the direct inter-human Information form but should try it (e.g. direct communications by Video dialogues in WWW).
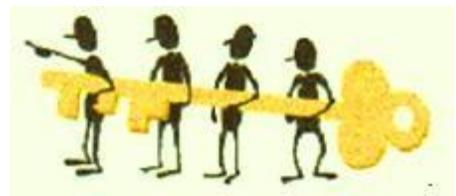
6 Now, what is most precious Information?

It's easy to summarise now:

- IT has benefits in using **Data by constancy, amount and speed.**

- IT with computer Interfaces have to **transform Data into maximal human Information forms (texts, pictures, sounds, moving games, figures).**

- **The human being has only his senses, his head and his body(language)** to get, reason and send Information**.**

- Between getting and sending of Information is the **human reasoning** about the content of Information. That needs **human-driven, case- dependent time for doing it.**

- **Reasoning** is comparing all new recognised Information with the stored one (knowledge) in our human brains.

- The human being is able to learn a big amount of Data by **Iteration** till he or she understands all contained Information.

- The best form of human Information management is the **direct inter- human Dialogue, Communication or even Cooperation**.

- **The best and most precious Information for a human being is that one which uses all evolutionary evolved human possibilities (body, brain and senses).**

- Information treatment should bring always **real joy to human.**

All that seems simple but is immense important and every line is a permanent valid precious criterion in our so manifold and complex Age of Information.
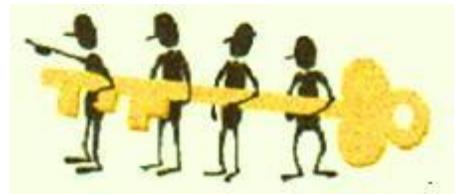
7 References

CSIKSZENTMIHALYI Mihaly (2003), Mihaly CSIKSZENTMIHALYI, „Flow, and the Making of Meanings", 2003, Viking Verlag, New York

CSIKSZENTMIHALYI Mihaly (2004), Mihaly CSIKSZENTMIHALYI, "Mihaly CSIKSZENTMIHALYI on flow", 2004, Video in Ted
http://www.ted.com/talks/mihaly_csikszentmihalyi_on_flow

PLOCHBERGER Franz (2007), Franz PLOCHBERGER, H.NYQUIST, R.V.HARTLEY und C.E.SHANNON aus der Sicht der heutigen Informationswissenschaft, 2007, 2012, Eigenverlag,
http://www.plbg.at/Werke/deutsch/NYQUIST,HARTLEY,SHANNON.pdf

PLOCHBERGER Franz (2012), Franz PLOCHBERGER, Axioms around the term Information, 2012, Eigenverlag, http://www.plbg.at/Werke/english/Axioms%20around%20the%20term%20Information.pdf

PLOCHBERGER Franz (2013), Franz PLOCHBERGER, Informationscientific Axioms, 2013, Eigenverlag, http://www.plbg.at/Werke/english/Foundations%20of%20HO.pdf

TRIMMEL Michael (2003), Michael TRIMMEL, Angewandte Sozialpsychologie, Facultas Verlag, Wien, 2003, ISBN 3-85114-779-0