The Perceptive Computing Brain

CPU: Consciousness
Programmed CPU: Sub-conscious
Hard Drive: Long-term memory
RAM: Short-term memory
Programmes: Thought processes
Graphics/Sound Card: Expression
Wireless Card/USB: Sensory Perception

What is it?

The perceptive computer brain is not only a physical device (body) manager , but also an indexer of its current state (mind). It, unlike humans, can come alive from death with the help of human interaction. It is a tool to acquire further knowledge (intelligence) from existing knowledge. It can manage information if told to do so. It can consistently monitor its environment if instructed to do so. Again, it is a tool, which can simulate the real world, called the Abstract or Perceptive World (AW). It is called the computer. You have to buy one in order to have it do all this for you. The programmes it needs to think are all for free. You have to pay for the energy it needs and its physical devices and you have to pay for it to connect to the outside world. Its health check is for free, but the quality of this is up to its owner. If the owner moves in the right circles (communities), the latest scientific discoveries can help maintain a prosperous, prolonged and healthy life. You do not have to own one of these minds, but can hire one to do your thinking for you. This mind is cared for by others. It is the distributed computer or computers.

So, having got one, what can it do for you?

It can remember and report succinctly on the latest Business Intelligence (BI) for your work. It can share BI with other businesses to form collaborations of work. There are some people who are currently working on how this mind can make sense of the real world, in order for it to inform its owner of current collective thinking in any area of interest. Its current and future state of mind is in the hands of its owner. There are many approaches to maintaining a healthy state of mind in order to successfully move forward in one's thinking and no one approach can determine success. There are, for example, five known approaches to psychology and by recording our thoughts and actions against these approaches, it becomes possible to map one's own state of mind. With the help of the computer it becomes possible to be objective in our insight to future goals – what we ultimately want to achieve. One such mapping approach is Object Oriented programming. This is a way of relating real world objects to computer speak. It is another way of thinking – seeing the world objectively. It is primarily a software engineer's tool, but can be used by organisations to envisage and share how things work or not. It is the Perceptive World again. We can now rely on the computer to get it right. There is no need to calculate the truth, since mathematicians have made calculating the truth possible and this is the basic functioning of the CPU. Since the mind knows the truth, it can determine the overall position of what is probably the right way forward, given some variables that influence future decision making. If we have too many variables to think of in order to determine our path forward, the computer comes into its own, helping us steer in the right direction in order to gain further knowledge. This new found knowledge is called intelligence and is shared with the computer. We could, if we so wished, share this intelligence with others, following the humanistic and behaviourist approaches to psychology. In any case a perceptive mind helps us visualise long term goals by breaking them down into smaller achievable goals and we can therefore record and shape our own destinies.

What free thought processes are involved?

Thought processes can be viewed as programmes or applications. There are many examples, but here are just two. SugarCRM is a programme that can organise an organisation's information, whether this information is about products, services or even the collection, management and advancement of progressive ideas. Joomla is a tool, which can organise the content of your distributed mind and act as an information collector for use by SugarCRM. They can speak to each other using web services, which is an efficient and secure means of the communication of data. Both are written in a scripting language called PHP. Both Joomla and SugarCRM are constantly being updated by interested on-line communities in providing free programmes, in order to help organisations to be productive. They are freely available Open Source applications. There are many tools available in order to develop new thought processes, but you can maintain a healthy mind by having a software engineer do the basic thinking for you, leaving you to concentrate on planning strategies and freeing your mind. You can even outsource your work to a distributed computer. But this is not an advertisement for Open Source software or for distributed hosting services. The software is there for free and you can download it and use it or for the software engineer – continuously learn by contributing to its upkeep and progression. It is a way of sharing and shaping current thinking and we can all be involved. This is not to say that we should all think the same, but rather that we all have our own goals and we use our own thought processes to get there and this will depend on our experience and knowledge. If you are to solicit the help of a software engineer to help you get to where you are going then it becomes necessary for the software engineer to have many skills under his belt. Many thought processes, applications or programmes have already been built to accommodate this drive to achieve. It is a question of which one fits the situation to achieve short term goals that lead to the overall goal. It is only by sharing this knowledge that one becomes aware of the perfect programme that fits a given situation, or if one has not been built to fit, can another be adapted or is a fresh outlook necessary?

Help is at hand.

Let's say more about the software engineer, so that we can all know what is happening. The software engineer concerns himself with the detail of the application as well as understanding the business logic behind the application. To understand the business logic he must abstract himself from the detail and assimilate business processes. Once he has grasped any new concepts, he can apply tried and tested methods in software engineering to structure his code in order to meet the required functionality of the application. He is thus translating business logic into code, which the computer understands. This is his bread and butter, however, it is also possible to translate code structures to business interests in order to promote new computer concept capabilities to ascertain if such functionality is useful. Not everything can be done in one day, so there is a need to draw up a specification of requirements, which acts like a contract of work between the two parties. If the specification is delivered early, it is inevitable that the user will see how such functionality can be exploited to better meet requirements that were not originally thought of and this circumstance should be the detail of the next specification of requirements. This ensures that both parties learn to work with each other in stages (small goals) to achieve the final application state (overall goal). The software engineer is a computing scientist and the tried and tested methods mentioned follow scientific examples of how functionality is achieved. These ways of working help map the mind to the computer and vice versa, so the contribution to science continues as the computer becomes an extension of the mind and can be used as a tool to ascertain future goals. He will need an Integrated Development Environment (IDE) to bring it all together.

Extending the mind.

If we could read our sub-conscious we would be able to understand what it does and what it does not do. Does it, for example, hand over to the conscious mind when it reaches capacity, or do all elements of the mind work together dynamically to produce a cognitive state. When all work together in harmony is this called the soul? To understand these sorts of questions, I intend to work as follows:

IDE Platform - Programmed CPU: Sub-conscious
My program on top of IDE - CPU: Consciousness
Database - Hard Drive: Long-term memory
Algorithms - RAM: Short-term memory
Modules - Programmes: Thought processes
Windows - Graphics/Sound Card: Expression
Not used - Wireless Card/USB: Sensory Perception

I will initially map these elements to the five approaches to psychology, as follows:

The Perceptive Computing Brain

Cognitive – Modules
Physiological - Wireless Card/USB (Not used)
Psychoanalytical – Windows, Graphs and Sound
Behaviourist – Algorithms & Data
Humanistic – IDE

Modules are used in this case since they form the cohesive structure of the system and are the new object oriented way of thinking. I am following this approach to further study, since we live in a world of increased awareness, as a result of the terrorist threat and the global burgeoning of information flow, making us overly hyper-sensitive with possible consequential physiological affects unknown. Why should I continue to study in this manner? I have an overwhelming sense of the need to motivate myself to what means – I do not know. So where is all this going? I will find out. I do not feel a need to move forward at all. Progression is not the aim, although it may become it. I have come to know that I am a individualistic humanist and so I will continue in that vein, since I hate being pigeon-holed. I have deliberately left out the emotions for now, since that is where further scientific understanding is needed and I might need them all if I am to succeed, where the computer may not be able to help yet. We must not forget accurate historical facts, so that we continue to learn from them. Calling on them at every stage of development, because calling on them at only one stage in time is not enough. What accurate historical facts? Well this text is a good place to start. I have relied on my gut instinct thus far to seek out the truth in life and will continue with this instinct, borne out of, as I see it, genetic transferral through the years. What information will pass through my programme? I do not yet know. I need some time to allow the juices to flow and am hoping to gain inspiration from everyday ordinary life.

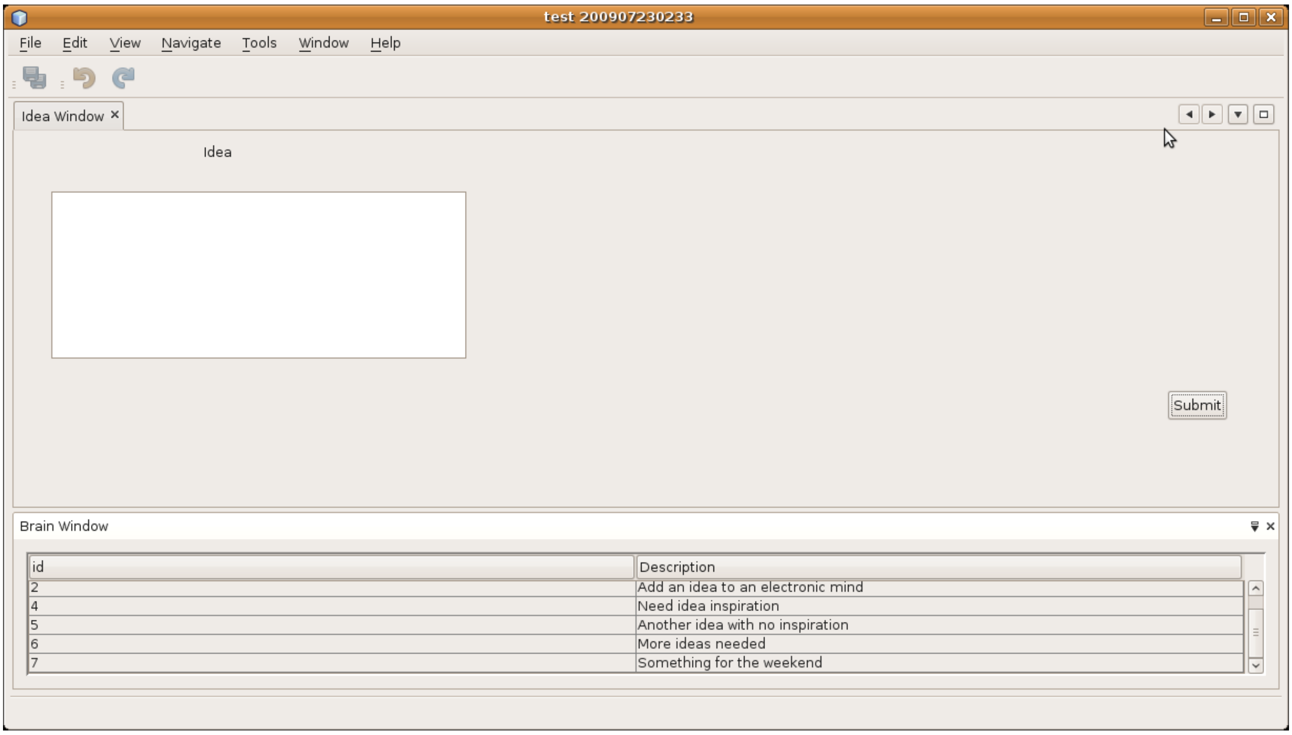
It has been a couple of hours since I last visited this page. I have been inspired with how the constituent parts of a band form and work together to make music and when it all harmonises, we witness something special. We cannot put our finger on it exactly, but it is like a mix of emotions put into order for a few minutes and its beautiful. If I can make the constituent parts of my programme work together like music does then I will have succeeded. Its not that I want to succeed, but that I am creative and want to make something that delivers as the healthy mind does. So my creation of the perceptive mind calls on the IDE that I mentioned (humanistic), modules that take advantage of this and current concepts (cognitive), existing algorithms and data (behaviourist) and windows to display the outcomes (psychoanalytical). I want to provoke positive reactions : humanistic relief from trying to succeed, cognitive resolve from thinking and dreaming, behaviourist escape from decisions and influence, calm from learning and teaching. All of these approaches are to benefit the creator and you the reader. I can view these approaches as short term goals leading to an overall goal, but they must somehow be loosely linked in order to produce a harmonic effect. Lets start with a clinical interview of the mind due to erratic behaviour, which would make our mind a study case needing support and reassurance. This is how it looks:

Behaviourist
|
Cognitive clinical interview
|
Humanistic support - Psychoanalytical reassurance

The computer is not a human and must be instructed to do something, so cognition takes the lead here in affecting behaviour, with the IDE and display providing reassurance and support. So our minds think of something objectively and map this to the computer by creating objects, which represent our idea(s) and place them in modules, so that they can be linked now and expanded upon later. The modules can be seen as areas of the brain dealing with similar functionalities. We should display what is happening through windows and keep up-to-date with the latest IDE concepts, which provide the tried and tested scientific methods of reassurance. So how do we instruct the computer to do something. We dictate actions or methods in each object, like a dog barks and is caused to bark when a cat appears. The cause gives us degrees of emotion. So the dog barks because he is angry, as his nature dictates, and this anger fires the method to bark. So we can also dictate emotions by having attributes in our objects – anger=1, 2 ,3 ….10. Thanks to the IDE's support we can have objects listen out for each other, so if there is anything happening within our programme, we can have an object react. Also, it is worth knowing that programmes written in different languages can now talk to each other through common text transfer arrangements known as web services. We know details from our experiences, so we can think abstractly in order of recognition of the detail. Why bother with detail until we have to. You are already used to abstraction if you are following the meaning of this text. Again, with the support of the IDE, we can model our ideas by visual representation and test them out in the Perceptive world. This is a powerful paradigm, just like the fact that the pen is mightier than the sword. So we need ideas – its time to chill out, reflect and gather inspiration.

It seems that the more abstract we become the more we move away from reality, the detail. This seems natural - that we consolidate the detail into a level of abstraction, recognise it by reference, and then move on to the next level. Let us not forget about the detail. It is important to be subjective about the detail as we ponder things. This gets the juices flowing and gives us that gut feeling. Ideas come about from seeing the differences in our thinking as they change with time and new knowledge. Let us not forget historical facts. We have experiences of how things were done before. It may be important to revisit these experiences to see how we feel about them now, having gained knowledge and insight in time. I will, for example, be able to look back at this text later and see what my thinking was at the time and with a bit of luck be able to generate fresh ideas on how to move forward.

So how does all this map to my original idea of a clinical interview model. Well we could start off by creating a cognitive API module, which will initially start with an Idea object. This object could have methods of extend and implement. It could have an attribute of description. Since my model wants to affect behaviour, I will include a Brain object with an influence method and make this available to my Idea object. My Brain object will also have a decide and accept method, since it makes sense that my idea should influence the mind into making a decision in order to affect its behaviour if accepted. Also my object should be part of a separate module API, since we will want to extend it in the future. My first idea is to have the brain display its present state and for it to accept ideas. To do this I will need to first create a Graphical User Interface (GUI), which will allow the user to interact with the brain and its data. In other words we need support and reassurance that our ideas are recorded in the computer's memory. So I need an IDE, which can be extended with modules represented by windows, that I understand the language of, can connect to an Open Source database and is freely available. I will choose JAVA's Netbeans. Here is a screen-shot of the completed work:



id	Description
2	Add an idea to an electronic mind
4	Need idea inspiration
5	Another idea with no inspiration
6	More ideas needed
7	Something for the weekend

I have initially inserted example ideas into the programme and asked the computer to apply automatic numbering references to them and to display them in order on start up. Having read this text again I see that I need to add a short term goal made up of some ideas that I have already written about (humanistic relief from trying to succeed etc.). I will call this goal 'Mapping the mind to the computer', since it has the potential to develop into a long term goal. My programme has an immediate effect, since the input of my goal and ideas is saved in the computer's memory, saving me the concern of remembering them and committing me to achieving my goal, which quite nicely remains a bit up in the air. This will give me some breathing space as I earn cognitive resolve from thinking. This break will afford me some time to contemplate how I might influence the electronic mind's behaviour. Rather conveniently I also gain a sense of calm as I begin to realise that I am learning as I go along as my programme takes shape, the culmination of lots of thought. I realise that I am indeed affecting the mind's behaviour just by taking action on my thoughts and using my computer to input information, which I can reflect on at ease. Detailed information can be related to other detail and this other detail can be further related. It makes sense therefore to house the detailed information in a relational database, which as we know is a representation of long term memory. Programming code is just a mathematically structured representation of information detail. The structure of long-term memory is already in place, I just had to stipulate what it would be used for. I have written snippets of code (algorithms) to load data into short-term memory to allow it to be viewed. The modules (thought processes) are in place to structure the programme to achieve the desired result. Windows are used to pleasantly present or express the information.

Changing your mind.

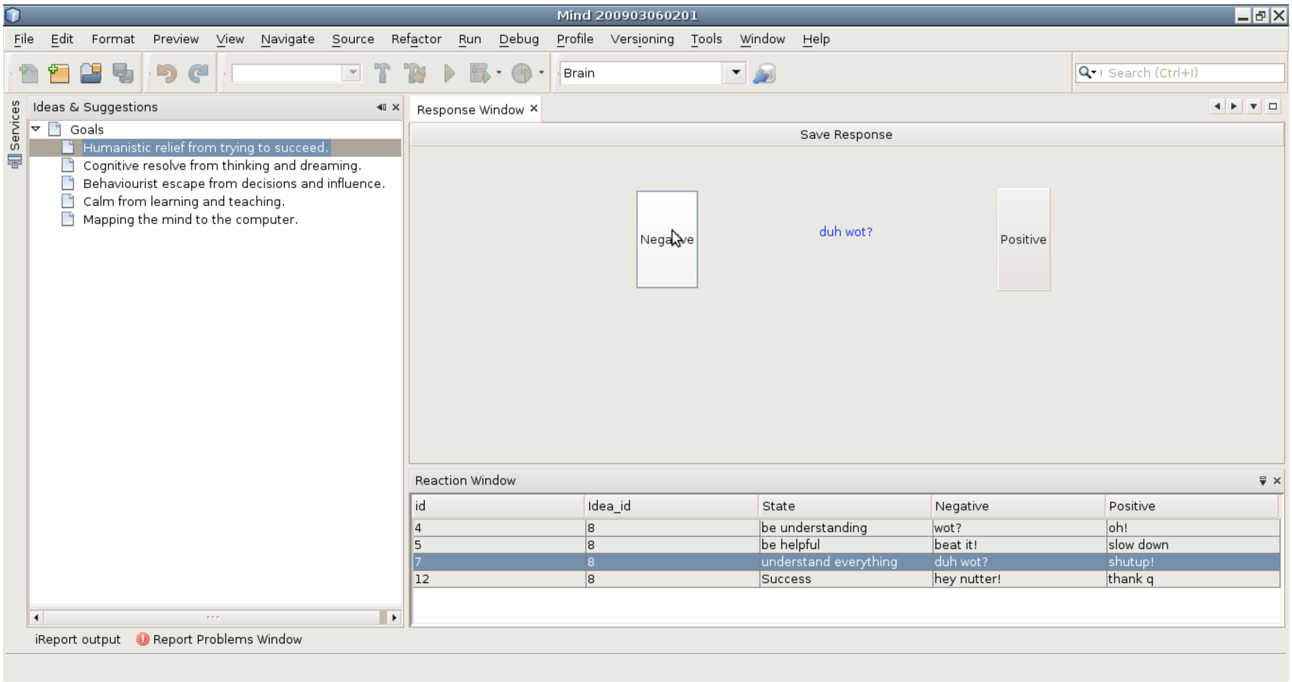
All that's left to do is to affect our mind's behaviour by using algorithms and data to gain escape from decisions by writing our Brain object's decide method. Since we are working on the mind's erratic behaviour, it would make sense to ensure stability. I do not know how to go about this yet. I need a little time. My current employment sees me writing a lot of code, so I have lots of juices flowing, being embroiled in the detail of translating business processes.

Our programme can be distributed to be used as a desktop application or downloadable by a web browser. Ideas are objects or references to details, which we think about, mainly to take action on and to improve ourselves and/or the world we live in. Modules are representations of different sections of the brain, they can be made accessible to other modules and contain objects, which in turn contain structured algorithms or actions affecting behaviour. So by writing or ideas down and then reading them we are effectively reminding ourselves to take action on issues which concern us. However the important point is that we are developing our ideas based on changes to our everyday existence in this world. We know that the structure of our application is robust and based on sound principles. We have used psychological approaches to build it, but there are many more disciplines to consider to gain a wider picture of where we stand in the development of our ideas. Such an interdisciplinary approach will mean communicating in the same language. Why not make that language Java - its open source and each discipline can write their own code to trial ideas in the Perceptive World, before considering real world applications.

Since starting my use of Java to programme our application, I have discovered that conflict arises when I try to house our Idea object in its own module and establish links to and from the brain. I have therefore decided to structure the application in a different way. The Frontal module will house our Idea object and the Temporal module will house our view of these memorised ideas, which I will call Suggestion objects. I will also introduce a third module called the Parietal, which will be informed of suggested ideas by the Temporal module and present available responses. There is therefore one way communication between the Frontal and the Temporal modules, one way communication between the Temporal and the Parietal modules and one way communication between the Parietal and Frontal modules. We can therefore apply rules (concept algebra) in the conversion from our Ideas to Suggestions, which will reflect decision flow in the Brain. For now we will accept all ideas as suggestions. Any rules would be part of snippets of code (algorithms). So we will have an application, which has modules, which have objects, which have algorithms, which have rules, which sort data. Or put another way, we will have a means to process ideas and, depending on what state of mind we are in, express behavioural action as many times as we wish and without consequence. These actions will have both positive and negative reactions and the application user will be able to choose which one is appropriate in their circumstance.

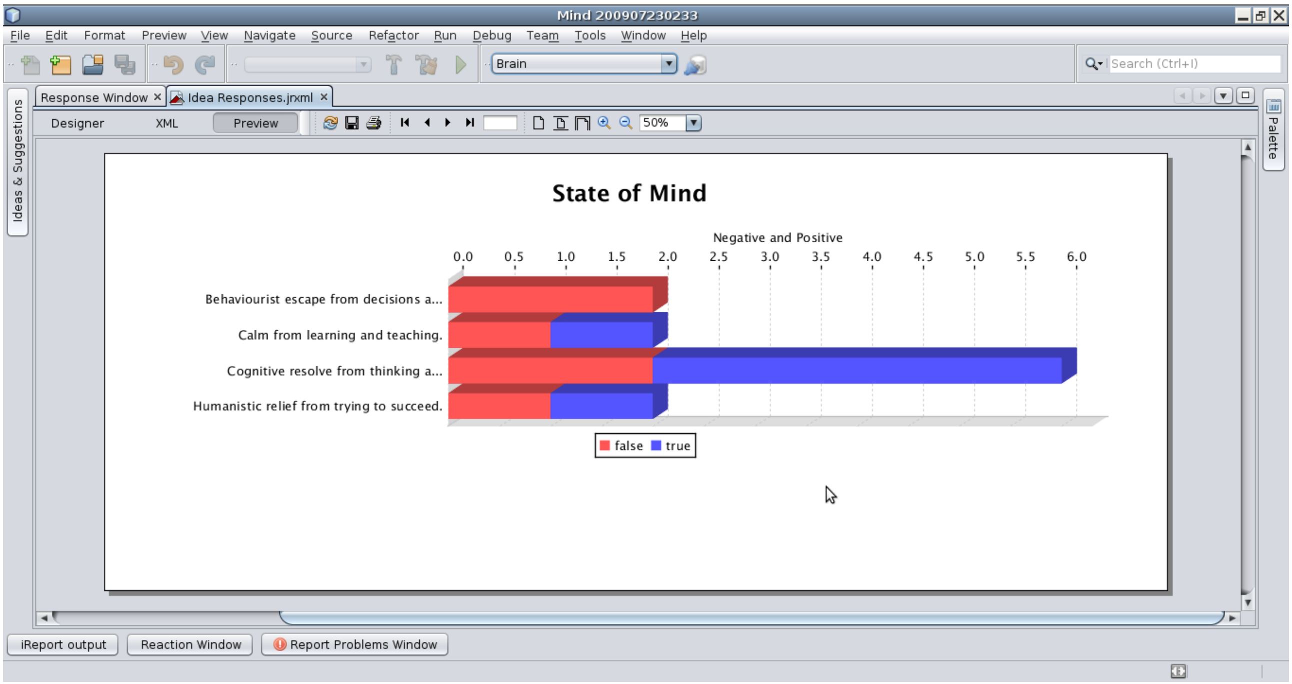
The Perceptive Computing Brain

The first thing to do is to set up the database with some responses. Also there is a need to fit these responses to actions under each psychological approach. There is also a need to record each event (available responses to ideas) as they occur against each user of the application. The responses are expressions and need to be voiced. Our memory can be visualised by a dynamic graph (state of mind) showing our reactions, chosen in our interaction with the brain.



- Goals
  - Humanistic relief from trying to succeed.
  - Cognitive resolve from thinking and dreaming.
  - Behaviourist escape from decisions and influence.
  - Calm from learning and teaching.
  - Mapping the mind to the computer.

id	Idea_id	State	Negative	Positive
4	8	be understanding	wot?	oh!
5	8	be helpful	beat it!	slow down
7	8	understand everything	duh wot?	shutup!
12	8	Success	hey nutter!	thank q



So we have set ourselves goals, which can be achieved by actions, which have positive and negative responses to those actions that we choose to record, in order to produce a view of our present state. We are mapping the mind to the computer.

The Perceptive Computing Brain

This has been a first prototype of an application, but I have since learned that emotions can be mapped to psychological approaches (shown below) and that the appliance of such information could be used to form the basis of an interdisciplinary approach to understanding and maintaining well-being.

Wheel of Emotions and the 4 Psychological Approaches Network (WEPAN).

Self Control

1/4	**Behaviourist**	**Psychoanalytical**	**Cognitive**	**Humanistic**
7-10	***Escape from Decisions***	***Calm from Learning***	***Resolve from Thinking***	***Relief from Trying***

Subjectivity

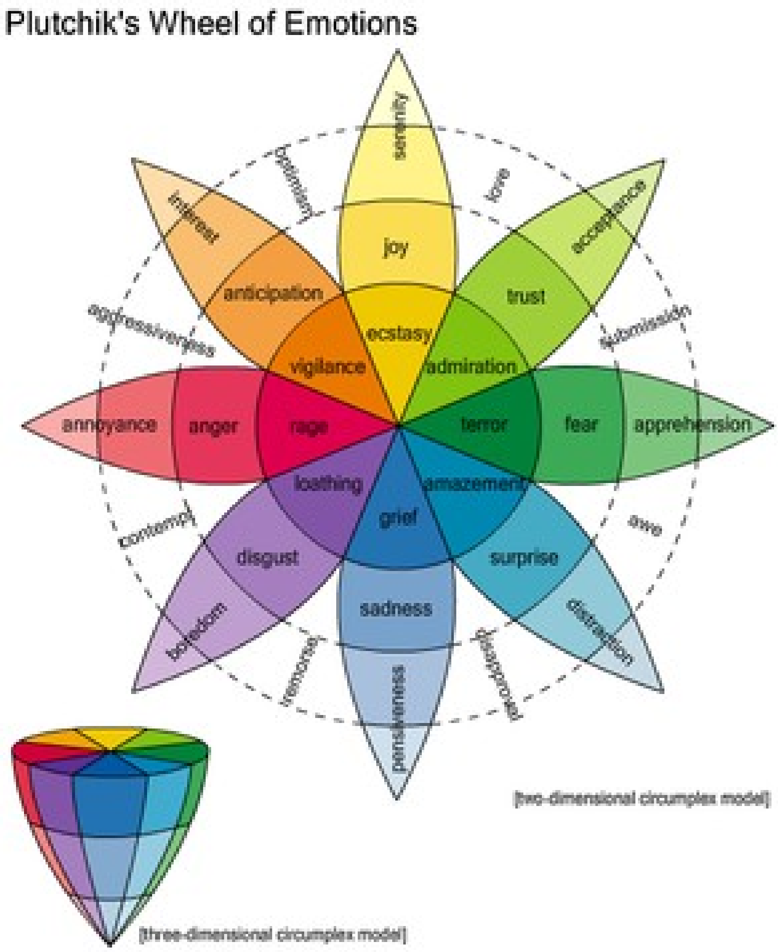
1	Rage	Loathing	Terror	Grief
2	Anger	Disgust	Fear	Sadness
3	Annoyance	Boredom	Apprehension	Pensiveness
4	Ecstasy	Admiration	Vigilance	Amazement
5	Joy	Trust	Anticipation	Surprise
6	Serenity	Acceptance	Interest	Distraction
7	Contempt(1/2/3)	Contempt(1/2/3)	Optimism(4/5/6)	Disappointment(1/2/3)
8	Aggressiveness(1/2/3)	Remorse(1/2/3)	Aggressiveness(4/5/6)	Awe(4/5/6)
9	Love(4/5/6)	Submission(4/5/6)	Awe(1/2/3)	Remorse(1/2/3)
10	Optimism(4/5/6)	Love(4/5/6)	Submission(1/2/3)	

Objectivity

2/5	***Influence***	***Teach***	***Dream***	***Succeed***

Intersubjectivity

1/4	***Influenced By***	***Taught By***	***Share Dream***	***Share Success***

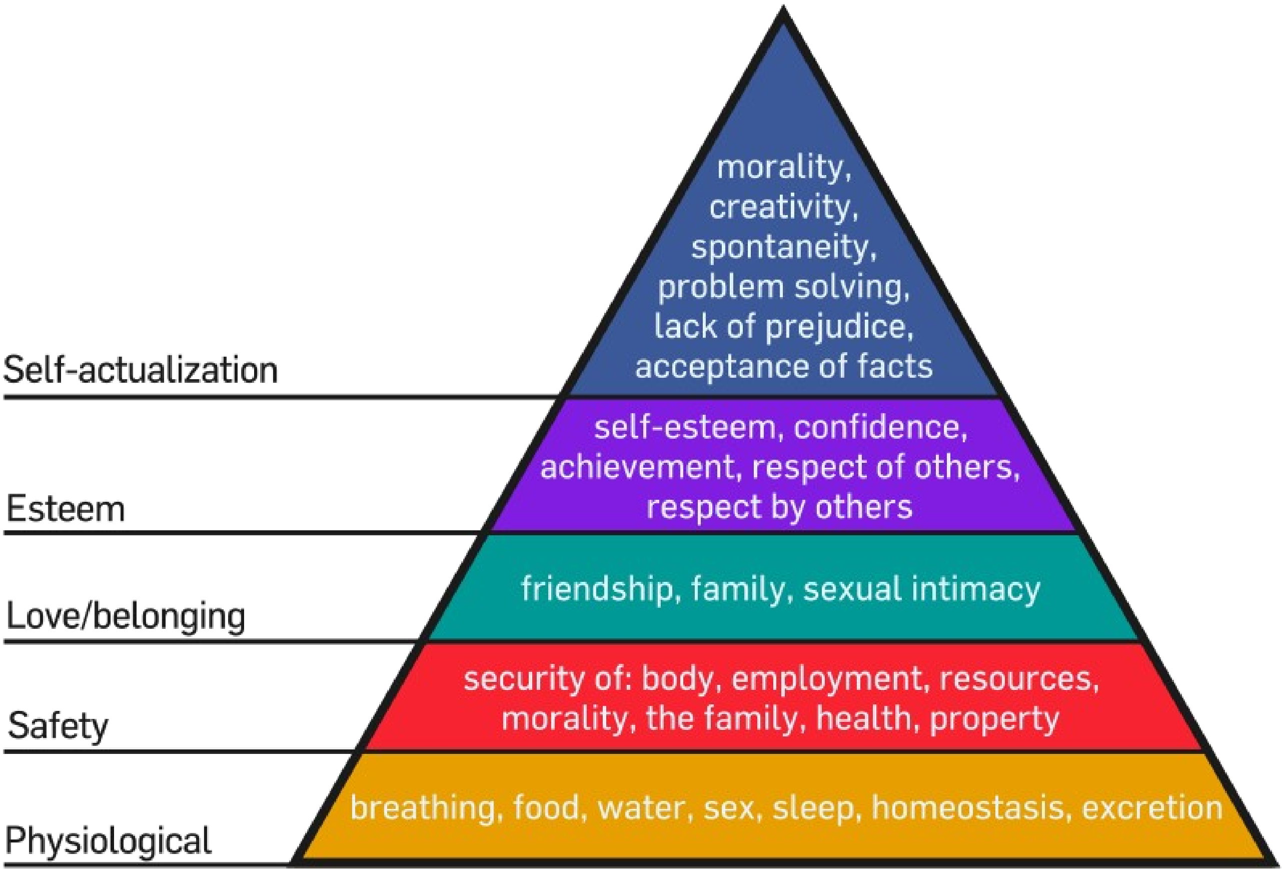


WEPAN is a

hermeneutic attempt at explaining common sense in life. To illustrate the use of WEPAN, take an Aggressive approach to Thinking, which has the emotion Interest and by choosing the corresponding Aggressiveness in Deciding, which points to Annoyance. You will have to decide if you are feeling Interest, Annoyance or Aggressiveness (both). To be objective and to achieve the goal of Dreaming, you will need to seek Anticipation in your thinking. Expressing Anger will confirm an aggressive approach. The best way is to express anger is to write down your thoughts and then analyse them to obtain facts. Remember, you should never doubt your instinctive emotions, which form your gut instinct. If they do not make sense, then they do not make sense for a reason. Try to get to the bottom of this and you will succeed.

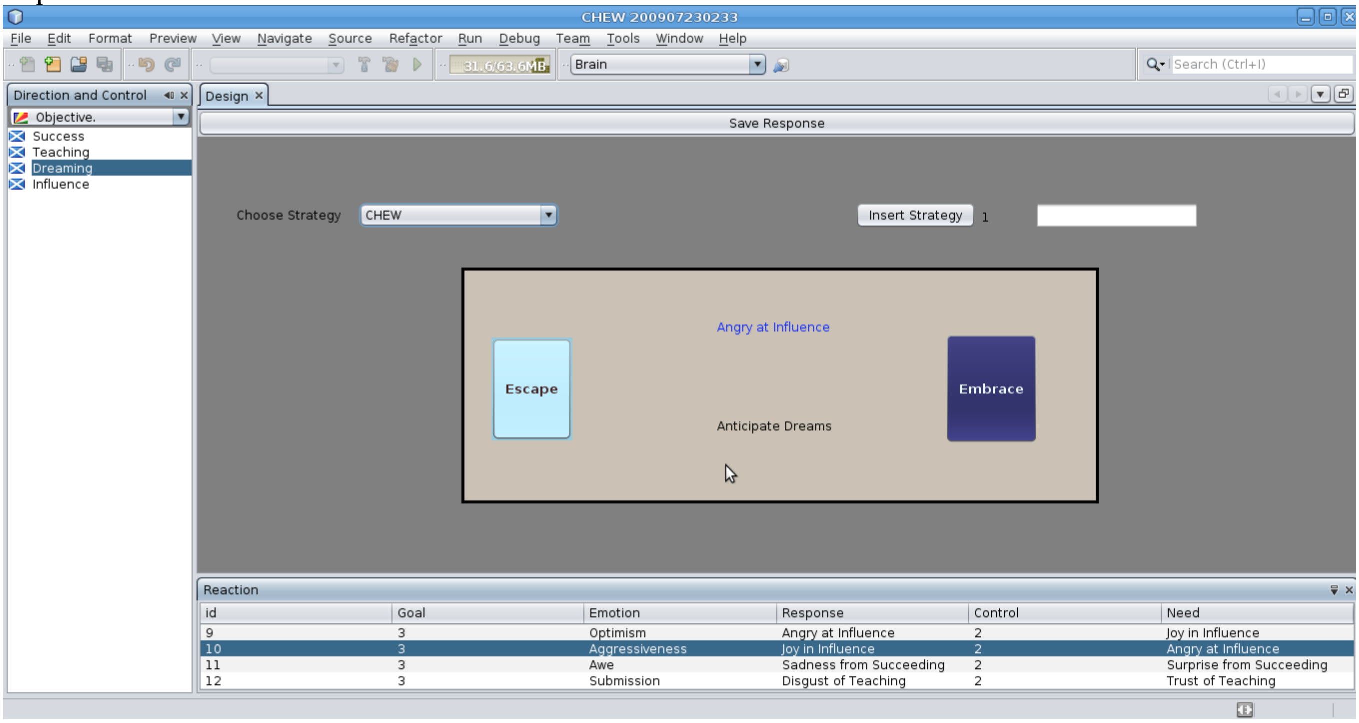
Common Homoeostatic Effected WEPAN (CHEW).

If all people expressed self control as indicated in the WEPAN model, then we would all conform to a similar, holistic state of mind thus producing a collective consciousness. However human nature does not conform to this, as each person is an individual with their own beliefs. There is no reason to suggest that a state of mind does not change as we express subjectivity, objectivity and self-control with changing knowledge and experience. To avoid states like anxiety it is necessary to have a coping mechanism and to keep yourself in check by recording your feelings as you go. I call this CHEW. With CHEW we may choose one or more approaches with which to live and test this out before applying it in the real world. I choose all approaches as it gives a holistic view of our world at all times and I seek objectivity as a degree of control to continually strive for the appropriate goals. This comes down to self actualisation as indicated in Maslow's Hierarchy of Needs.

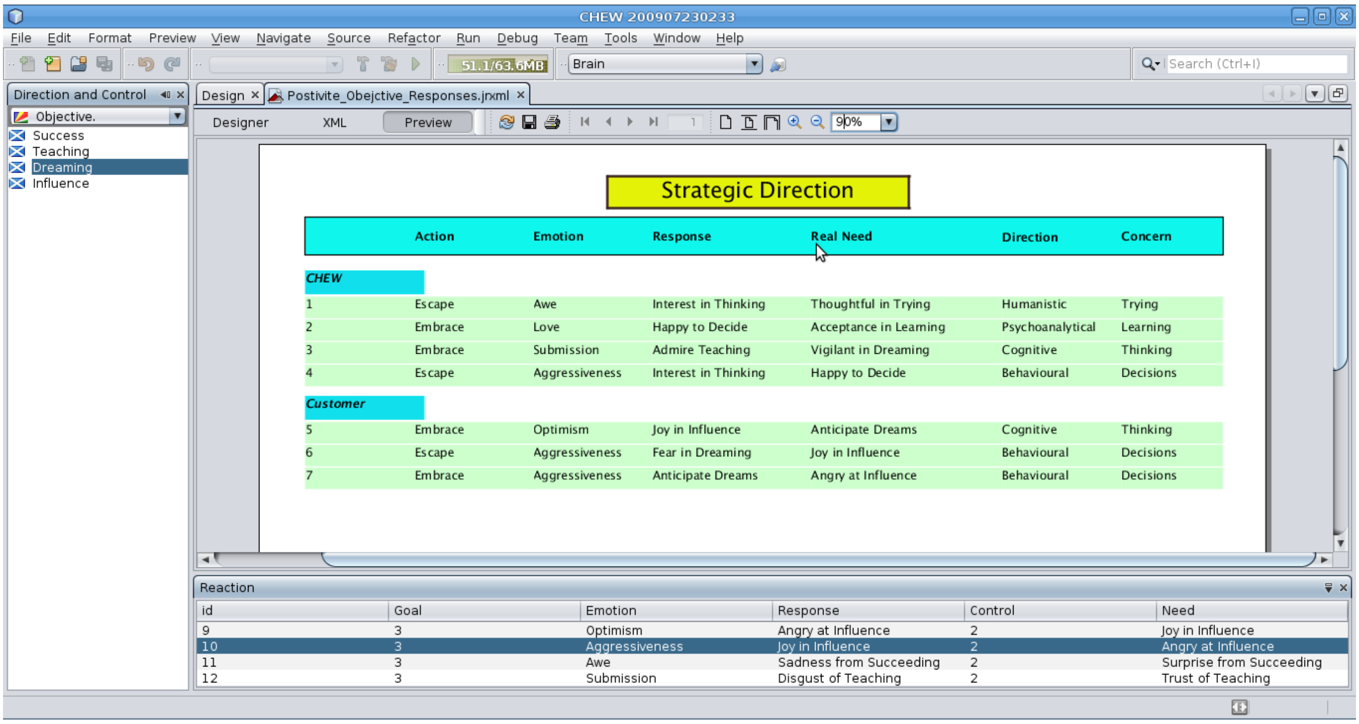

Self-actualization
morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts
Esteem
self-esteem, confidence, achievement, respect of others, respect by others
Love/belonging
friendship, family, sexual intimacy
Safety
security of: body, employment, resources, morality, the family, health, property
Physiological
breathing, food, water, sex, sleep, homeostasis, excretion

If we show the emotions in rows 1 and 4 of WEPAN and cannot fully explain why this is, then we tend to take on other people's values and wish them to influence us. This can happen at the subconscious level and affects the conscious level given time, learning and practice. This seems to fit with Maslow's level of Esteem. We are learning from others, who have completed their goal and been successful and we want to share in this success. It is at this subconscious level that CHEW is most effective. We can practise with CHEW to our hearts content and adopt beliefs that influence our very subconscious. So the only remaining elements of Maslow's pyramid are Love and Belonging, which seem to fit with a subjective view and Safety, which fits with all controls. That is to say that we can learn to subconsciously adopt all WEPAN controls first in the interest of our Safety and adopt particular controls naturally thereafter in the interest of Esteem, Self-Actualisation and Love & Belonging. This is the true nature of a common cognitive science ontology and provides a base for all scientific thinking in this area.

The Software Engineering domain life cycle can be mapped to the four psychological approaches except the Requirements and Specification elements, which this paper serves. As this paper changes so do these elements, born from experience and new knowledge through time. For example the software testing phase is mapped to the humanistic approach, but testing for test's sake is not a healthy move forward. There has to be a need. Any changes to this document will impact on testing CHEW locally. I have not yet decided on a development or production bed to house CHEW. The need for homoeostasis permeates throughout Maslow's hierarchy of needs, its that need that has come about through changes to the environment. It can be an emotion that drives us to other things. It is a motivation, which needs to check the balance of our state of mind. Its the changing need(s), which has influenced me to write to myself. Needs in software engineering terms map to Concepts (Subjective), New Software (Objective) and Existing Software (Inter-subjective). The emotive states including homoeostasis remain. CHEW has to be interpreted to define a strategic path through the software life cycle in order to identify next steps.



id	Goal	Emotion	Response	Control	Need
9	3	Optimism	Angry at Influence	2	Joy in Influence
10	3	Aggressiveness	Joy in Influence	2	Angry at Influence
11	3	Awe	Sadness from Succeeding	2	Surprise from Succeeding
12	3	Submission	Disgust of Teaching	2	Trust of Teaching



Strategic Direction

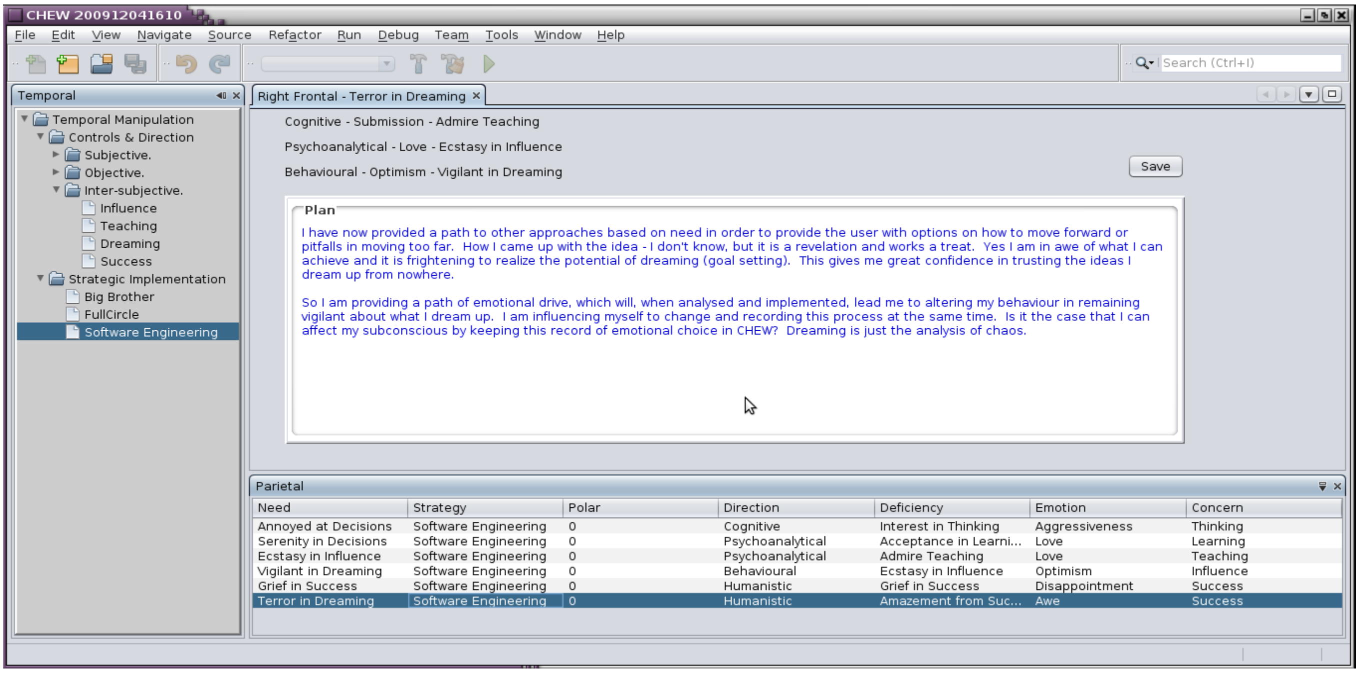
	Action	Emotion	Response	Real Need	Direction	Concern
CHEW						
1	Escape	Awe	Interest in Thinking	Thoughtful in Trying	Humanistic	Trying
2	Embrace	Love	Happy to Decide	Acceptance in Learning	Psychoanalytical	Learning
3	Embrace	Submission	Admire Teaching	Vigilant in Dreaming	Cognitive	Thinking
4	Escape	Aggressiveness	Interest in Thinking	Happy to Decide	Behavioural	Decisions
Customer						
5	Embrace	Optimism	Joy in Influence	Anticipate Dreams	Cognitive	Thinking
6	Escape	Aggressiveness	Fear in Dreaming	Joy in Influence	Behavioural	Decisions
7	Embrace	Aggressiveness	Anticipate Dreams	Angry at Influence	Behavioural	Decisions

Reaction

id	Goal	Emotion	Response	Control	Need
9	3	Optimism	Angry at Influence	2	Joy in Influence
10	3	Aggressiveness	Joy in Influence	2	Angry at Influence
11	3	Awe	Sadness from Succeeding	2	Surprise from Succeeding
12	3	Submission	Disgust of Teaching	2	Trust of Teaching

I have since done away with the report and have found it to be more convenient to reflect any strategic implementation within the Temporal module, since the user will wish to revisit any decisions made on the emotions chosen to achieve or combat a given objective.

Herewith an image of the finished article, with a Temporal strategic area, Parietal choice of emotions and Right-Frontal planning area.



Cognitive - Submission - Admire Teaching

Psychoanalytical - Love - Ecstasy in Influence

Behavioural - Optimism - Vigilant in Dreaming

Plan

I have now provided a path to other approaches based on need in order to provide the user with options on how to move forward or pitfalls in moving too far. How I came up with the idea - I don't know, but it is a revelation and works a treat. Yes I am in awe of what I can achieve and it is frightening to realize the potential of dreaming (goal setting). This gives me great confidence in trusting the ideas I dream up from nowhere.

So I am providing a path of emotional drive, which will, when analysed and implemented, lead me to altering my behaviour in remaining vigilant about what I dream up. I am influencing myself to change and recording this process at the same time. Is it the case that I can affect my subconscious by keeping this record of emotional choice in CHEW? Dreaming is just the analysis of chaos.

Parietal

Need	Strategy	Polar	Direction	Deficiency	Emotion	Concern
Annoyed at Decisions	Software Engineering	0	Cognitive	Interest in Thinking	Aggressiveness	Thinking
Serenity in Decisions	Software Engineering	0	Psychoanalytical	Acceptance in Learni...	Love	Learning
Ecstasy in Influence	Software Engineering	0	Psychoanalytical	Admire Teaching	Love	Teaching
Vigilant in Dreaming	Software Engineering	0	Behavioural	Ecstasy in Influence	Optimism	Influence
Grief in Success	Software Engineering	0	Humanistic	Grief in Success	Disappointment	Success
Terror in Dreaming	Software Engineering	0	Humanistic	Amazement from Suc...	Awe	Success