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(54) Title: Medically perpetual persistence of essential human life

(57) Abstract:

Description

Title of Invention: Medically perpetual persistence of essential human life

Cross reference to related application

- [1] This Patent Application claims the benefit of United States Provisional Patent Application No. 61058253, filed on 03 June 2008, which is incorporated herein by reference in its entirety.

FIELD OF INVENTION

- [2] The field of invention is biomedical engineering. It primarily, but not only, involves neuroscience and electrical engineering. A novel, and possibly the **ONLY** feasible, means of effective persistence of human life for perpetuity is presented.

BACKGROUND OF INVENTION

- [3] As indicated above, the applicant deems it futile of anyone to attempt to keep the human body alive perpetually - **THAT WILL NEVER WORK, EVER**, although it will be possible to increase the relative duration of the longevity of the body. It is a reasonable expectation that regardless of the state of research even millions of years from now, each body **WILL** die some time, either from old age, or external events (including diseases caused by external events, accidents etc). That is because given the virtually unlimited count of interacting variables involved inside and outside a body to keep it alive, it will forever be impossible to successfully manage them all for eternity.
- [4] This Patent Application presents the applicant's novel invention on a practical mechanism of essential persistence of life for perpetuity.
- [5] The applicant sees two perspectives to human immortality -
- [6] A. Immortality only from the perspective of people that knew the original human, but not from the perspective of the original human.
- [7] B. Genuine immortality from the perspective of the original human.
- [8] The applicant infers that while it will in principle be technically feasible soon to transfer the cognitive and sufficiently important individual-defining non-cognitive contents of the human brain to a new brain (or another equivalent entity) whereby the people who knew the dead human would perceive the new entity containing the transferred data as essentially having simulated the original human, the key flaw in that approach is that the original human being will **NOT** feel as having continued life in the new entity - **the original human's sense of self identity 'I' would not be transferred into the new entity**. Instead the second human's sense of self identity would be of a **new 'I'** that would be a reasonable **COPY** of the original human's identity, and there

could in principle be an unlimited count of such copies across multiple entities. That, however, does not constitute genuine immortality. In short, if the original human was 'Mary' or 'James' the second entity would still say 'I am Mary' or 'I am James', but the original Mary or James would not accept the respective second entities as them, both when the original Mary or James are still alive and after their body-death. For purposes of this Patent Application, the original human will be referred to as 'Mary-I', while the second human per 'A' would be 'Mary-II-A', and that per 'B' 'Mary-II-B'. This Patent Application pertains to the creation of Mary-II-B.

SUMMARY OF INVENTION

[9] This Patent Application is on the second perspective ('B.') listed in the previous section, whereby the original human Mary-I would actually recognize herself as having been transferred into the new entity, with that entity being preferably a regular human brain attached to a regular human body.

[10] There will be a common period of time prior to Mary-I's body-death when Mary-I and Mary-II-B would both be simultaneously alive, and while still alive Mary-I will be able to confirm her being able to recognize the (foreign) memory and cognition of the second brain and sense input from the second body. Mary-I will in effect be able to use not only her own brain's resources (i.e. her brain hardware and data) and input from the senses of her own body, but also be able to use the resources (i.e. brain hardware and data) of the second brain and receive input from the senses of the second body. Then, per the mechanism described in this Patent Application, Mary-I will willfully 'transfer' her memory and consciousness to the second body. Of course, the people around the original human (Mary-I) would deem the second human (Mary-II-B) as essentially being even more of Mary-I, than would be the case with Mary-II-A.

SUMMARY OF DIAGRAMS

[11] Figure 1 - Demonstrates a sample neural network of 8 brains, including Mary-I's original, that forms an integrated, single, logical, augmented center of consciousness. As indicated, upon subsequent physical delinking, ordinarily at most only one of the 7 other brains can manifest Mary-II-B, while each of the remaining 6 can at most manifest Mary-II-A. Arrows indicate direction of flow of information, hence the direction of consciousness transport prospect, albeit the invention recommends dual-directional rather than unidirectional arrows in each case. Of course, the at-most-single Mary-II-B brain is only in as much as that only a single, logical, (augmented or diminished) integrated center of consciousness can be created to control one brain or a set of linked brains - and so it is optionally possible to have Mary-II-B to be created across multiple brains that are combined to form a single, integrated, logical center of consciousness. There will still ever be only ONE Mary-II-B, regardless of whether or

not she is created in one brain or across multiple brains. The latter would not be recommended because of the logistical inconvenience that would be associated with the need to have multiple brains constantly communicate towards maintaining that logical, integrated center of consciousness.

- [12] Figure 2 - Demonstrates a sample neural network of 8 brains, including Mary-I's original, that forms an integrated, single, logical, augmented center of consciousness, whereby, upon subsequent physical delinking, while only one (ordinarily the maximum count permissible per this invention's inference) of the 7 other brains manifest Mary-II-B, only 3 of those 7 other brains manifest Mary-II-A and the remaining choose to retain their respective original identities. Arrows indicate direction of flow of information, hence the direction of consciousness transport prospect, albeit the invention recommends dual-directional rather than unidirectional arrows in each case. Again, the at-most-single Mary-II-B brain is only in as much as that only a single, logical, (augmented or diminished) integrated center of consciousness can be created to control one brain or a set of linked brains - and so it optionally is possible to have Mary-II-B to be created across multiple brains that are combined to form a single, integrated, logical center of consciousness. There will still ever be only ONE Mary-II-B, regardless of whether or not she is created in one brain or across multiple brains. The latter would not be recommended because of the logistical inconvenience that would be associated with the need to have multiple brains constantly communicate towards maintaining that logical, integrated center of consciousness.

DESCRIPTION OF INVENTION

What is self identity and how is that relevant to perpetual persistence of life?

- [13] In the context of this invention it would be relevant to understand precisely what constitutes one's being aware of oneself and hence one's existence. While the views presented in this section are entirely the applicant's own, they do NOT by themselves constitute the invention itself, but instead justify/prove/validate the invention.
- [14] The first step towards that understanding would be to analyze if a human brain soon after conception were in principle medically isolated from all possible forms of input (to the brain) for decades afterwards while still being artificially provided all forms of nutrition to keep it medically alive and cause it to physiologically mature as brains would normally grow would at all have a consciousness and consequently have a sense of self-awareness. In other words, could a human brain develop consciousness when right from its inception it ceased to have absolutely any auditory, visual, olfactory, taste or tactile or absolutely any other form of input - the latter including a sense of pain, pressure, vibration etc. (which essentially are appropriate combined or singular

renditions of the fundamental five senses anyway)? Regardless of whether that brain would still have medically 'awake' and 'sleep' cycles, including cycles of dreams, what could that brain base its consciousness on?

- [15] To answer that, one could ask oneself how one recognizes oneself cognitively immediately upon waking up from sleep. **That awareness is from independent, corroborating recent (and sometimes past) memories of incidences, in addition to corroborating new input from the five senses with memories already in the brain of similar prior input** (e.g. the visual/auditory input on surroundings being either similar to or different from what is already in memory, etc). **Hence there need be some memory for self awareness. Memory is accepted as valid memory (and not imagination) with a high degree of conviction when it can be corroborated with other memory - and therefore the reality of memory is that each experience typically gets laid down in long term memory as a set of independent memories that effectively corroborate (and therefore reinforce/validate) each other** - e.g., the memory of having simply sat in a chair somewhere could be recalled from various separate sitting-/time-/surroundings-/etc. angles, hence when recalling that experience one would essentially corroborate across multiple memories of that experience and therefore reasonably assess that one did indeed sit on that chair. In contrast to that, if all one recalled from that experience was just ONE SINGLE STATIC memory of sitting on the chair, one would fail to adequately corroborate that memory with other memories of the same experience, and hence one would reasonably question the accuracy of that memory. The fact that most incidences are perceived across a span of time, however short, enables a memory of each such incident to be laid down as a set of corroborating memories, and of course the more intense an experience the greater would be the information content and count of such independent, corroborating memories. It could be noted that the count of memories of any experience would also increase with the intensity of that experience, even if the core incident behind that experience was fleeting. That is because the intensity of the experience would enable the individual to accept input (to be mentally tagged to that experience) on that experience for an appropriate period even after its occurrence. For example, if a person accidentally suffers a cut to a finger from a very momentary lapse of concentration while, say, cutting a piece of fruit to eat, the consequences of that cut would substantially add to the memory content of that experience, which would all be appropriately considered later for independent mental lookup and corroboration towards ascertaining whether one did indeed cut one's finger. As the brain continually lays new memories appropriate to the perceived significance of an experience, the longer an experience persists, and the more significant an experience is assessed to be at and shortly following the time it occurs, the more separate (yet linked, as they relate to the same

event/experience) memories of it would be laid down that can later be collectively accessed for a corroborative validation on if the recalled past event/experience's having actually occurred. Each of those memories is built with various layers of the 'knowledge framework of rules' (with basic rules at the lowest layers, and at the upper layers are more complex rules created using the relatively lower layers' basic rules and other rules of typical complexity not more that itself) that one gradually first develops at early childhood and continues developing on subsequently for one's entire lifetime (forming more and more complex rules). As particular complex rules are used more often, they themselves get directly interpreted to major extents without requiring referring the lower rules for interpretation, therefore increasing the speed of processing of related complex experiences. **In short, self awareness requires memory, and for memory to form there have to be experiences, which are impossible in the absence of external input.** It is important to recognize that if there is even a tiny amount of any input given to the brain at any time (e.g. in the case of any individual who might be born regular, but soon loses all physical senses within a day of birth), the brain would take that minimum information that was available for a day and naturally proceed to build up on that towards continually generating newer information databases - and in that case the brain **WOULD** be conscious. That build up of new information in that stated particular brain would largely be abstract of course as additional external input would be absent that would otherwise have enabled the buildup of a framework of a pool of rules adequately reflective of 'reality', but the brain would still develop an altered consciousness 'in a world of its own'. It is significant to note that that state of abstraction is NOT truly unreal per se, but it is abstract in the context of the 'real' world that regular humans live in. The human brain is designed to accept external input, however minimal, and, based on its significance, appropriately process the information contained in that input towards not only optimizing the subsequent application of the perceived rule(s) contained in that input, but also develop more complex rules premised on the basic rule(s) as voluntary and deemed necessary choices in anticipation of a need to apply such complex rules.

[16] **Therefore in the complete absence of all forms of external input, the applicant infers that it is logical that that brain would fail to have a meaningful form of consciousness. There would essentially be no meaningful functional difference between its states of wakefulness and sleep, even if the brain goes through biological sleep and wakefulness cycles anyway.**

[17] The above conclusion is based on the hypothetical premise of a complete absence of external input into the neurons of the brain since the neurons' conception. In reality, that scenario is virtually impossible, because at the least the neurons would be able to sense medical variations of the state of the brain itself as 'internal' input that would be

processed and developed upon towards an abstract perception of consciousness. In fact, even artificially rendering permanent unconsciousness to the brain since inception wouldn't make possible that state devoid of all input, since as long as the neurons are alive they would still automatically collect information from its surroundings, including, from within the brain itself, as well as from within itself. Of course the quality of consciousness would vary depending on the quality of input that it is based on.

[18] However, the above conclusion is relevant to establishing the fact that being aware of the self and therefore being aware that one is alive mandates that the brain receive external input over a period at some point (at least in the past), as is enumerated further below.

[19] The mind of a regular human associates its sense of 'I' with a virtually limitless count of memories that it can validate each of either entirely from other memories already in the brain related to the same event/entity/experience and/or with new input from the five senses. For example, one of those associations with one's self identity could be - 'I recall having placed my finger on a cube of ice in the freezer compartment of my kitchen refrigerator a week ago, and my finger felt very cold' and 'I recall placing my hand on a block of ice in the supermarket ten years ago and my finger did feel cold' and 'Let me go touch snow ice that has collected outdoors in my garden this winter morning and let me try to experience if it indeed feels cold to the touch'. Each of those two memories correctly corroborate with each other affirming the individual's belief in the validity of those memories and therefore in the individual's identity of self. This is further reinforced by subsequently determining that snow ice feels the same to the touch. When the brain is totally relaxed, yet awake - that bandwidth of the sense of 'I' tends to narrow (in the sense that there's a lower count of memories of the self active uppermost in the mind). When there's total amnesia of past memories and a complete loss of the ability to lay down new long term memories, one loses one's sense of identity completely, yet one can still function for basic tasks with short term memory (which do not contribute to one's self identity). A further degeneration of brain abilities would ultimately lead towards a gradual to a complete loss of even the ability to function.

[20] A highly relaxed, awake human mind is of course not always entirely aware of its identity at any of the uppermost predominant layers of consciousness. Such periods typically are no longer than a short few seconds. That state is different from when the mind is so focused in other deliberations that one's awareness of one's own identity ceases to be a priority consideration for the duration of that focus, which also typically is no more than a few seconds. However, in a matter of seconds, in either case, one's identity comes actively back in one's mind at the appropriate upper level(s) of

awareness. Of course since the levels of awareness in one's mind are made up of various layers consciousness (most conscious at the highest and least conscious at the lowest), self awareness is manifested only in the appropriate layers, commensurate with the significance of the need to be self aware (per the ongoing deliberations in one's mind, and where relevant the external input as well). It is to be noted that even while one might not be consciously aware of the more profound aspects of one's identity during the stated periods of intense alternative focus, one still retains a form of self awareness in more simple parameters - by comparing incoming external input with short- and long term memory of the same input. For example, that awareness continuity could be in the form of a breeze blowing across one's face before and then, or some background sound persistent before and then, et al.

[21] Therefore, **what a human cares for in as much as being alive is to be able to CONSCIOUSLY refer back - and therefore naturally corroborate across - as many of those memories as is possible, in the process not only consciously and subconsciously affirming the individual's self identity but laying new memories (in the form of plans, etc) towards feeling positive about one's self identity in the long run on the whole.** The latter is of course achieved in a complex combination of learnt behaviors (outside the scope of this Patent Application) that ultimately release the 'feel good' neurotransmitter et al chemicals in the brain (e.g.

[22] (A). learning that society currently affirms that one must love and take good care of one's child and therefore one must do good to one's child, based on which genuine love for the child develops (albeit that love also develops in the absence of society based on other aspects related to memory in the human mind), therefore doing good to one's child or seeing the child happy releases those feel-good chemicals in the brain.

[23] (B). learning that society encourages success, hence planning for and attaining success releases those feel-good chemicals in the brain.

[24]).

[25] Therefore, **that self identity (and not the brain hardware associated with it) is what constitutes being a particular human, and it is that self identity that the invention described in this Patent Application focuses on perpetually transferring sequentially, towards life's persistence in perpetuity.** To be noted is that brain hardware is of course critical for that identity processing to be done, and subtle variations in the hardware of the brain would cause subtle changes in the perception of one's self-identity even with everything else remaining the same - for example if a pair of (genetically identical) clones were kept in the same environment since inception, they would NOT develop to have the exact identical memory banks or personality. However, the applicant infers that most brains' hardware is acceptably identical within reasonable limits in the context of this processing (distinguishing a human brain from,

say, a dog's brain or - as an extreme incompatible example - a latest modern day super-computer), rendering it possible that most brains be acceptably compatible to process that transferred self-identity in as much as their being able to reasonably manifest the original human's self awareness and traits.

[26] For feasibility, this invention uses the brain's existing abilities and properties towards that transfer, as elaborated subsequently in this Patent Application.

[27] The quality of human consciousness containing (by definition) one's self identity, even for the same individual, is plastic. There are multiple, non-discrete qualitative levels of increasing or decreasing consciousness. **In all cases when one can reasonably identify oneself, one ultimately normally has a positive experience with one's being alive and awake, hence it would be any of these states of consciousness (where one can meaningfully identify oneself) that would need to be transferred in the context of immortality.** However, when there is no sense of self identity at all (when, for example, there's total amnesia of past events associated with a complete inability to lay any new memory) even while the ability to otherwise fully function with short term memory alone is retained, the state would not be meaningful to transfer towards immortality because there is no self identity in such a case.

Key feasibility controls

[28] At the core of this invention are the following controls that render this invention feasible -

[29] **(i.) The applicant's inference that what constitutes being any particular human is NOT tied to any one physical brain, but the awareness of memory content and new external input towards direct and indirect self-recognition (i.e. consciousness of the self) and learned reactive rules (i.e. personality, which to a major extent is essentially a manifestation of consciousness of the self) (more importantly the former, because human personality can be modified/learnt later but critical information needs to be retained if self-identifying memories have to be passed on) THAT CAN EACH BE CONSCIOUSLY (AND OTHERWISE, primarily the former) - WHILE THE ORIGINAL BRAIN IS ALIVE -- RENDERED FAMILIAR WITH A NEW BRAIN'S HARDWARE AND ITS INFORMATION CONTENT, INTEGRATED FOR FUNCTIONING (WHILE STILL KEEPING THE ORIGINAL INFORMATION SEPARATELY IDENTIFIABLE) WITH THE NEW INFORMATION CONTENT AND HARDWARE OF THE SECOND BRAIN ALONG WITH THE ORIGINAL BRAIN HARDWARE. THIS PROCESS CAN BE EXTENDED TO BEYOND A SET OF JUST TWO BRAINS. CONSEQUENT TO THAT and the other controls listed in this section THE APPLICANT'S INFERENCE THAT ANY ONE ORIGINAL BRAIN IS**

ABLE TO CONSCIOUSLY (AND OTHERWISE, primarily the former), FOLLOWING THE STATED INTEGRATION WITH ONE OR MORE ADDITIONAL BRAINS (& THE INFORMATION CONTAINED THEREIN), CHOOSE ONE OF THOSE BRAINS TO BASE ITS CONSCIOUSNESS (and therefore personality too) ON. THAT IS BASED ON THE FACT THAT EACH INDIVIDUAL HUMAN BRAIN CONSTITUTES A REASONABLE MINIMAL HARDWARE THAT IS ABLE TO SUPPORT ADEQUATE HUMAN CONSCIOUSNESS BY ITSELF, ALBEIT THE QUALITY OF THAT CONSCIOUSNESS IS EXPECTED TO BE SLIGHTLY INFERIOR TO THE INTEGRATED CONSCIOUSNESS ATTAINED WITH MULTIPLE BRAINS.

- [30] (ii.) The applicant's inference that there cannot be more than one integrated center of consciousness (that, by definition, acknowledges complete self identity) for any living entity at any one time. There can be multiple separate integrated centers of consciousness, each of which could in principle separately take complete control of one's entire core consciousness at different points of time, but only one can be the sole integrated center of consciousness at any one time. To rephrase, THERE CAN BE AT MOST BE ONE LOGICAL (and hence PHYSICAL (which crucially doesn't entirely HAVE to be at one location - just that the constituent physical components need to not be physically delinked)) CENTER OF CONSCIOUSNESS FOR ANY LIVING ENTITY AT ANY ONE POINT OF TIME. To rephrase, in the context of the human, when a set of integrated brains (manifesting an integrated center of consciousness) are physically delinked, the consciousness of that set can at best be transferred to AT MOST one human brain's center of consciousness (or - if chosen - an integrated, augmented logical center of consciousness formed of interlinked centers of consciousness of multiple regular brains) (and at worst to no human brain at all - the integrated consciousness would just be destroyed), in as much as a human brain is considered the minimum (but NOT the maximum) physical hardware capable of adequately hosting a comprehensive center of human consciousness that (i.e. the consciousness) can be fully independent of reliance on any other hardware (i.e. any other brain), as is the case with every known regular human brain today. This for example, is to contrast the regular human brain from that of a primate in much as the latter being incapable of physically hosting a human-quality center of consciousness. Again, that is not to state that consciousness WILL be transferred to one brain even if not desired, but only that AT MOST one center of consciousness (spanning one or multiple brains) can have the integrated consciousness transferred to (if applicable/necessary at a slightly inferior quality, but adequate and comparable to the quality of consciousness in any regular human

brain). Again, it is important to note that in principle it is 100% possible that if so elected an integrated center of consciousness can be transferred to span across multiple human brains whereby the multiple brains would either together host a SINGLE integrated center of consciousness or independently host separate centers of consciousness only one of which would take full control at any one point of time, however such would render this invention less practicable and less useful, because of the then need for perpetual communication and cooperation among multiple brains that typically would also imply the requirement of the same count of independent, perpetually collaborating humans.

- [31] (iii.) The already publicly recognized ability of the brain to attempt to **functionally optimally** (i.e. as best as is possible given the tissues and other aspects of the scenario) communicate with neurons not part of that brain, and with the **quality of communication augmented in a technology enabled environment**. This has been independently evidenced in various attempted-regenerative/'curative' procedures involving the cerebrospinal system.
- [32] (iv.) The brain's already publicly recognized ability to still function optimally (as best as is possible) without the original entirety of the brain, on account of **information content multi-duplication and redundancy across the brain, brain hardware redundancy and brain hardware function flexibility**. This is evidenced in cases of traumatic brain injury or surgical removal of brain components.
- [33] (v.) The (human) brain's already recognized ability to learn to do just about **anything, with and/or without conscious will**. There is no dearth of evidence on the brain's remarkable learning abilities.

Specific steps in invention

- [34]
- [35] **Step 1 - Link brains to communicate**
- [36] **[Key feasibility control applied - (iii.)]** (Ref. 'Key feasibility controls')
- [37] Mary-I is to be linked to the new brain.
- [38] The intention is that subsequently, per Step 2, Mary-I's brain naturally integrates (enabled by appropriate, minimal external technology support (Ref. 'Technology supported interbrain communication')), as far as optimal logical functioning, with the brain of the second individual towards jointly forming an augmented logical neural network, essentially aimed at rendering the two brains capable of functioning as one, while still maintaining their separate identities at will.
- [39] In order to be meaningful (for example for protection from transmissible terminal illnesses like hepatitis, cancer tissue, HIV etc) this integration will NOT mandate a direct tissue connection, but instead can even be achieved with wires, or even entirely

wirelessly.

[40]

[41] **Step 2 - Learn to use other brain, towards forming (together with Mary-I's own brain) an integrated, (virtual) single, augmented, logical brain containing an integrated, augmented, logical center of consciousness**

[42] **[Key feasibility controls applied - (i.), (ii.), (iii.), (v.)]** (Ref. 'Key feasibility controls')

[43] This is the most critical component of this invention, whereby each of the two connected brains would, using a combination of the appropriate, minimal external technology support and optimal mental effort by way of using the brains' natural ability to learn and optimally integrate with new hardware, gradually recognize the hardware and information content of the other brain, towards forming a single, augmented, logical brain with a single, augmented, integrated logical center of consciousness.

[44] *That single, augmented, integrated logical center of consciousness will include, in whole or in (typically the most) part, the logical center of consciousness of each individual brain, and (typically) an additional consciousness component originally present in neither of the two original centers of consciousness. That additional consciousness component may preferably be reduced or eliminated for the integrated, augmented consciousness to maintain acceptable fidelity to the logical integration of the original set of consciousnesses.*

[45] The aim of this step is to establish one logical center of consciousness (while still consciously and otherwise retaining the separate identities) for the combined brain at any one point of time, such that it can be switched on or off at will (by the combined single logical center of consciousness, with (importantly - so that the rights and will of each original human are never compromised at any point) each original separate logical center of consciousness retaining full overriding control on its own share of original physical resources and original information content) to return back to the state of the two separate logical centers of consciousness. In short, the combined logical center of consciousness will happen only if both original separate centers of consciousness agree, while never losing awareness of and control on their separate original identities (i.e. on the separate original logical centers of consciousness), and should one of those identities wish to exit the combo it could. The combo would essentially remain an optimally integrated sum of two separately distinguishable parts that could choose to either separate or work together - with each maintaining the critical ability to recognize and influence the other. So there is an element of trust involved, necessitating a correct selection of the two original human candidates, and it would be meaningful that with that selection correctly done the logic of mutual- and overall good would largely prevent infraction of rights by the combined logical center of con-

consciousness of its separate always identifiable component original centers of consciousness; in fact, it would also be easy for each brain's consciousness to willfully deny detrimental 'takeover' against its will by another brain's consciousness, much though not exactly the same way for example the Autonomic Nervous System in any standalone individual optimally controls that individual's heart rate, digestion etc without direct conscious control by that individual's consciousness albeit the individual would still be appropriately aware of the individual's heart rate, digestion, etc. In other words, the consciousness combo in the combined logical center of consciousness would remain appropriately aware of each component center of consciousness and be able to control that component center of consciousness to an extent appropriately less than the extent of its awareness of it. As an additional option, that awareness by the integrated center of consciousness of each component center of consciousness and consequently of the human body originally attached to each respective component center of consciousness can be but does not have to be 100% - in other words it could be but doesn't have to be that sections of a component center of consciousness and consequently of the original human body attached to that component center of consciousness remain completely out of bounds of the integrated center of consciousness, not just in Step 2 but even at the conclusion of Step 3. That one logical center of consciousness could be physically located at either brain, or in both combined - of course ideally the former for portability logistics so that Mary-I's original brain hardware could be completely disregarded at will (if so chosen by the stated combined single logical center of consciousness, (pre-) approved by Mary-I).

- [46] After the two brains have been linked to communicate so that the process of logical functional integration could begin, the next step would be for Mary-I to consciously (and sub-/unconsciously) familiarize with the second brain's hardware's peculiarities and with the information content therein, and consequently 'learn' to cogitate using 'both' her existing brain as well as the second brain's hardware resources and information content. This process could last several hours up to multiple days (in sessions), in the earlier phases of implementation of this invention, and would expectedly very significantly speed up with improvements in supporting technology later. The stated processes of logical integration and learning by both the two brains would proceed at the same time. The neurons of the brains would know how to optimally integrate and function jointly, as long as a potent communication environment (outlined separately in this Patent Application) is provided. At the end of the process, the brains would be deemed to have provisionally been functionally integrated towards optimal logical operations as one (virtual) single, augmented brain. That virtual single brain would have two separate physical centers of consciousness of course (that would, at mutual consensus as part of the process of learning, switch off or on alternately and

simultaneously as part of that learning), and Mary-I's brain and the other brain would each learn to recognize the logical consciousness center of the other brain, and as part of the familiarization process grant alternating permission for trial control of consciousness and data (i.e. retrieving and adding memory, processing new input from body etc.) by the other brain's center of consciousness. Essentially Mary-I's sense of self identity would now include recognizing new data and brain behavior that were not originally hers and which she would reasonably 'tag' as such (i.e. she would not confuse new information in the second brain with her own original information in her brain, instead she would tag new information as not originally hers and simply learn to deal with that information while maintaining her identity in the integrated logical combo). As part of the integration, she would also learn to recognize and work with the other brain's different physical components and data therein towards manifesting her own original personality, to the extent that her original personality would need to be reasonably exhibited at will following the transfer. While a significant portion of the learning will be in conscious states, part of the learning will be in sub-/unconscious states as well. **This process of 'learning' towards a logically integrated single (virtual) brain with a single (virtual) logically integrated center of consciousness made up of the always identifiable separate original two logical centers of consciousness (with two physical centers of consciousness that will not always be either simultaneously awake or simultaneously asleep, by mutual consensus) where each brain learns to recognize and work with the other brain's physical components and data therein towards manifesting one's original self-identity and personality and other adequately significant aspects of oneself using one's own and the other brain's hardware, and identifies and tags the other brain's information content as not being one's own original memory, and with the combined single logical center of consciousness maintaining the ability to be switched on or off at will (by the combined single logical center of consciousness itself (or by one/more individual component original logical center(s) of consciousness where applicable), with (importantly - so that the rights and will of each original human are never compromised at any point) each original separate logical center of consciousness retaining full overriding control on its own share of original physical resources and original information content) to therefore enable a return to the original state of two separate logical centers of consciousness (if so desired), is the first significant step of this process.** Post transfer, the traits of either Mary-II-B or the original second individual would be manifested at will whenever chosen. In effect, the 'better' traits would ordinarily manifest (again, largely at will) - for example if Mary-I was level headed and the second individual originally was less so, then the combo would be level headed at will, and if Mary-I was poor in Math

while the second individual was not then the combo would not have to be poor in Math.

[47] The centromedian nucleus, which is part of the ILN (Intra-Laminar Nucleus) of the thalamus, is already recognized in the medical community today as an important center of consciousness in the human brain. Since, as part of the 'learning' phase, the two separate brains would need aim to function as one with *preferably* but *not necessarily* one physical center of consciousness (*towards attaining the post-learning-completed requirement of having one logical center of consciousness for the combo at any one point of time, albeit with the combo's never losing awareness of the two separate identities*), the applicant recommends enabling neural networking that allows the two centromedian nuclei and other separate components that all jointly constitute the two integrated centers of consciousness in the two brains to both remain functional (to allow for both the independent brains to learn to recognize and 'learn' each other and consequently enable *both* operate jointly as one center of consciousness and also separately as two separate centers of consciousness that each brain would be able to sense both of), as well as alternatively temporarily disabling the integrated center of consciousness in each brain. For part of the process, both brains' centers of consciousness would optionally need to be simultaneously disabled (naturally as sleep, and artificially with technology support) to allow natural, enhanced with technology support, optimized information dissemination from the other brain into each brain. During the process, information from the second brain would be naturally, enhanced with technology support, optimally integrated with Mary-I's brain, and vice versa, resulting in Mary-I's being able to consciously sense and deliberate with memories in the second brain and sense and process input from the second body. The second brain would be able to do the same with memory in Mary-I's brain and input from Mary-I's body.

[48] Mary-I and the other individual could be geographically located separately anywhere (albeit in the earlier incidences of implementation of the mechanism in this Patent Application they should be in proximity), and at the conclusion of the process of that optimal functional integration, Mary-I and the second human would each have a *voluntary (i.e. it can be switched on and off at will)*, augmented cognitive ability primarily SOLELY (i.e. in the most part) using the physical resources of the other brain. The centers of consciousness of the two separate brains would also be able to *at will* operate as one or separately. At that stage, either Mary-I or the other individual could be relocated to the other brain.

[49] The applicant emphasizes that in this invention dual-directional transfer is more recommended than unidirectional, towards a higher degree of potency of the process.

[50]

- [51] **Step 3 - Relocate to second brain and physically disassociate from original brain**
- [52] **[Key feasibility controls applied - (i.), (ii.), (iii.), (iv.), (v.). The notable inclusion of (iv.) is relevant for reasons of the reduction (by way of disassociation from the original brain (hence from the center of consciousness therein)) of the augmented, integrated, logical brain (hence of the augmented, integrated, logical center of consciousness) of Step 2] (Ref. 'Key feasibility controls')**
- [53] The sequence of the two operations in this Step 3 surmised in the step title above is important -relocation at will happens first, physical disassociation with the original brain happens next.
- [54] With the two brains having already been functionally integrated in Step 2 towards the creation of one logical, augmented, integrated single center of consciousness (that will also have, to appropriate extents, retained awareness of and control on the separate original identities), it would be necessary here to get the two brains' centers of consciousness suitably collaborating towards confirming with Mary-I that she can acceptably sense an integrated consciousness using the centers of consciousness and memory in both the brains and input from both the bodies and then checking that the same responses are consciously made *representing Mary-I* from the second individual. **Next, Mary-I would consciously (and otherwise, with external technology support) actively 'relocate' in a highly focused, deliberated and conscious fashion to the augmented, integrated, logical center of consciousness and voluntarily (by focused deliberation or otherwise, with external technology support) disable (or render less relevant) her own brain's center of consciousness thereby gradually relinquishing control of self identity from her own brain and allowing self identity to be processed from the augmented, integrated, logical center of consciousness (which by then would essentially comprise of, in whole or in (typically the most) part, the logical center of consciousness of the second brain, and (typically) an additional consciousness component (that, as indicated elsewhere in this Patent Application, may be reduced or eliminated) originally present in neither of the two original centers of consciousness) such that when her original brain is then disassociated her consciousness (and hence by definition her self-identity) would all the while have remained active in the other brain, she becoming Mary-II-B.** Implementing the process while conscious per the critical procedural preference stated above would render the process reasonably safe in the sense that Mary-I would definitively know that she has transferred to the second brain prior to her death.
- [55]
- [56] **Step 4 - Repeat Steps 1 to 3 for essential immortality**
- [57] Mary-II-B can repeat the three steps 1-3 at an appropriate time before the physical death of her new body. This cycle of 4 steps is continued, to render Mary-I effectively

immortal.

Other considerations

- [58] **To be noted here is that memory/personality information in the sections of the brain that are not relevant to conscious cognition (e.g. breathing, swallowing, etc) will be given a lower priority for transfer.** The reason for that is that while those components do have a minor contribution to self identity, that contribution is relatively minimal. Most of these lesser significant to self-identity inadequately cognitive body functions would be directly taken up by the host body's already existing capabilities.

Fair scope of invention

- [59] Without limiting itself to (i.e. irrespective of) any specific support hardware, this Patent Application covers the four-step process earlier detailed, even when more than two brains are involved. The latter is possible, per discussions in this Patent Application, if for example Mary-I chooses to link to multiple (and not just one) other brains towards forming an integrated brain with an integrated consciousness center, prior to delinking from them all into one brain (or - not recommended - multiple brains, towards an integrated, augmented center of consciousness) of her choice to form Mary-II-B.
- [60] In short, **this Patent Application encompasses not only all morphs/ variations/renditions/forms/flavors of the combination of the three steps (Step 1, Step 2 and Step 3) with and without Step 4 - enumerated in the section 'Specific steps in invention' - but also (all morphs/variations/renditions/forms/flavors) of the following core sequence of three steps Step A, Step B and Step C, with and without Step D (that together constitute an adequate, accurate superset to the steps in 'Specific steps in invention'), in the premise of, but not limited by, the applicant's comprehensive logic, details, options and variations elaborated in the entirety of this Patent Application. As is self evident, all applications of existing or future technologies in the context of all morphs/ variations/renditions/forms/flavors of the sequence of three steps - Step A, Step B and Step C - with and without Step D, are included in the scope of this Patent Application. Notably, Step B and Step C by themselves or together in any sequence, whether or not preceded by Step A and succeeded by Step D are also included in the scope of this Patent Application. Step A by itself is covered in the Patent Application only to the extent that it is relevant to medically perpetual persistence of essential human life as detailed in this Patent Application, as well as to the form of connection outlined in (and therefore may be lawfully expanded or extrapolated on as being included in this Patent Application's scope) Step 1 of 'Specific steps in invention', Step A and elsewhere in this Patent Application and to the application**

of interbrain communicating technologies described in 'Technology supported in-terbrain communication' and elsewhere in this Patent Application. In extension, of 'Specific steps in invention' Step 2 and Step 3 by themselves or together in any sequence, whether or not preceded by Step 1 and succeeded by Step 4 are also included in the scope of this Patent Application. Step 1 by itself is covered only to the extent that it is relevant to medically perpetual persistence of essential human life as detailed in this Patent Application as well as to the form of connection outlined in (and therefore may be lawfully expanded or extrapolated on as being included in this Patent Application's scope) that Step 1 of 'Specific steps in invention' and elsewhere in this Patent Application and to the application of in-terbrain communicating technologies described in 'Technology supported in-terbrain communication' and elsewhere in this Patent Application. However the technologies themselves, to the extent not discussed in this Patent Application and to the extent not applied towards all morphs/variations/renditions/forms/flavors of one or more of the three steps below (Step A [except when Step A is excluded from the Patent Application's scope as described above], Step B and Step C, in any sequence, with or without Step D) would be outside the scope of this Patent Application. **Again, the novelty and hence the scope of this Patent Application is not limited to the application of the supporting technologies towards the steps below and (application) to the steps in 'Specific steps in invention', but importantly includes the steps themselves. The novelty of the steps is MORE significant than the novelty of the application of the technologies themselves towards manifesting those steps. However, the fact that the invention entails the use of technology as a necessary aspect of each of the four steps contributes to enabling the invention's lawful patentability.**

[61]

[62] **A. Mary-I's brain is linked to one other brain, or multiple other brains.**[63] **[Key feasibility control applied, APPROPRIATELY EXTRAPOLATED - (iii.)]**

(Ref. 'Key feasibility controls')

[64]

[65] **B. Mary-I learns (using a combination of (various levels of) conscious-, various levels of subconscious-, and (various levels of) unconscious- initiatives with technology support) to use other brain(s), towards forming one integrated, augmented brain (or a combination of communicating integrated, augmented brain systems) containing one integrated, augmented, logical center of consciousness (or a combination of communicating, integrated, augmented, logical centers of consciousness, only one of which would have authority over the set of participating brains in that particular augmented, integrated, logical center of**

consciousness, at any one time). Each integrated, augmented, logical center of consciousness would comprise of in whole or in (typically the most) part, the logical center of consciousness (hence include an appropriate fraction of the consciousness component therein of the associated brain) of each individual constituent brain, and (typically) an additional minor consciousness component (that may preferably be reduced or eliminated for the integrated, augmented consciousness to maintain acceptable fidelity to the logical integration of the original set of consciousnesses) originally associated with none of the constituent brains. Each integrated, augmented, logical center of consciousness will be physically located across one or up to all of the individual single original centers of consciousness in each constituent brains - preferably (for upcoming (per Step C) Mary-II-B's logistical convenience) in exactly one of the constituent brains' centers of consciousness - and only one integrated, augmented, logical center of consciousness may control a constituent brain at any one point of time, even though that brain may be part of multiple separate integrated, augmented, logical centers of consciousness. As part of that learning Mary-I would consciously, subconsciously and unconsciously adequately recognize herself (inclusive of all, most or an acceptable extent of her key original memories) using the (and each, when multiple) integrated, augmented, logical center(s) of consciousness - hence the logical center(s) of consciousness in the other brain(s). That recognition would alternatively be, at Mary-I's conscious/subconscious/unconscious initiative/will, using some/all the centers of consciousness (i.e. at will, including her original own and the other(s) and separately using only the other(s) and not her original own). As indicated at the top of 'B.', at the end of this step will be formed one integrated, augmented brain (or a combination of communicating integrated, augmented brain systems) including Mary-I's brain, containing one integrated, augmented, logical center of consciousness (or a combination of communicating, integrated, augmented, logical centers of consciousness, only one of which would have authority over the set of participating brains in that particular augmented, integrated, logical center of consciousness, at any one time).

[66] [Key feasibility controls applied, APPROPRIATELY EXTRAPOLATED - (i.), (ii.), (iii.), (v.)] (Ref. 'Key feasibility controls')

[67]

[68] C. Mary-I chooses a logical center of consciousness if multiple individual logical centers of consciousness have been created in step B., 'relocates' to it, logically disassociates from Mary-I's original brain (i.e. from the original center of consciousness of Mary-I) (Note - while a physical disassociation from Mary-I's brain is not mandatory, that will typically ultimately follow), and therefore manifests

Mary-II-B within that chosen logical center of consciousness. The logical center of consciousness would ideally be located physically in just one of those other (i.e. non- Mary-I) brains - hence in the center of consciousness therein that one brain - for enhanced logistical convenience of Mary-II-B (but could in principle be located in more than one of those brains as well, as long as they're logically linked forming one integrated, augmented, center of consciousness). At the end of that transfer Mary-I's brain will be logically, and in practice often physically, disassociated from the integrated, augmented, logical center of consciousness that Mary-II-B has relocated to.

[69] [Key feasibility controls applied, APPROPRIATELY EXTRAPOLATED - (i.), (ii.), (iii.), (iv.), (v.). The notable inclusion of (iv.) is relevant for reasons of the reduction (by way of disassociation from the original brain (hence from the center of consciousness therein)) of the augmented, integrated, logical brain (hence of the augmented, integrated, logical center of consciousness) of Step B] (Ref. 'Key feasibility controls')

[70]

[71] **D. For essential immortality of Mary-I, Mary-II-B will repeat steps A, B and C at an appropriate time prior to the physical death of Mary-II-B's (new) body. The cycle of 4 steps is repeated for as long as Mary-I is wished to be kept alive.**

[72] To clarify scope, while **the manifestation of Mary-II-B is completely covered within the scope of this Patent Application**, the manifestation of Mary-II-A in itself is not covered in the scope of this Patent Application as long the scope of this Patent Application detailed in the rest of this section ('Fair scope of invention') is otherwise rigorously applied - to rephrase, the use of morphs/variations/renditions/forms/flavors of the stated four-step process towards the creation of Mary-II-A is covered in this Patent Application's scope.

Proof of feasibility/ tangibility/ concreteness/ originality/ innovation, hence patentability

[73] The sections 'Key feasibility controls' and 'What is self identity and how is that relevant to perpetual persistence of life?' outline the primary bases of feasibility. Additional feasibility considerations are in the sections 'Recommendations', 'Deliberations & clarifications' and 'Technology enabled interbrain communication'. 'Specific steps in invention' and 'Fair Scope of invention' make explicit application of the bases of feasibility surmised in 'Key feasibility controls'.

[74] The proof of tangibility is of course in the perpetual continuity of life this invention achieves.

[75] The proof of concreteness is in the specific four steps listed in the sections 'Fair

Scope of invention' and 'Specific steps in invention'.

- [76] The proof of originality and innovation is of course in the very fact that feasible, tangible and concrete perpetual persistence of essential human life constitutes this invention, because perpetual persistence of human life has never been possible yet in any other invention by humankind.
- [77] While the novelty of the overall four steps of the invention is substantially more significant than the novelty of the application of the technologies themselves as part of the invention towards manifesting those steps, the integration of such appropriate technologies as a necessary aspect of each of the four steps of the invention, therefore and otherwise rendering the overall invention original, innovative, feasible, tangible and concrete, contributes to enabling the invention's lawful patentability. Additional details on feasibility could be provided upon request - reflecting that it is appropriate to neither limit the applicable technologies nor immediately build a physical prototype because:
- [78] - Many different technology options are currently feasible for this invention, with and/or without the relevant follow up insignificant (and/or optionally significant), time spanning, observation and analysis, whereby the immediate patentability of this invention remains entirely undiminished, and is in fact augmented, by such follow up- and other technical considerations.
- [79] - A complete physical prototype would be feasible if sufficient funding, time and direct and/or at least indirect public will (for example, but not limited to, in terms of a commercial end user market for the invention) are confirmed.
- [80] - The immediate building of a physical prototype is as unnecessary to affirming the validity (i.e. originality, novelty, feasibility, tangibility and concreteness) - and hence the patentability - of this invention as would be, for example, for any other entirely unrelated invention (not in the scope of this Patent Application) whose originality, novelty, feasibility, tangibility and concreteness are entirely self evident, yet building a physical prototype would require the availability of funds, time and/or at least indirect public will.

Recommendations

- [81] It is important to note that as part of the applicant's considerations on quick implementation feasibility the applicant emphasizes on the following -
- [82] · Recommends that consciousness be preferably transferred across existing brains of reasonable maturity. Of course the more similar the second brain is to Mary-I's original brain (if largely 'regular'), the better would the quality of Mary-II-B be - and if Mary-I's original brain is less than regular (e.g. from a congenital- or injury induced hardware shortcoming) then the target brain to transfer to should ideally be regular. Of

course the younger the second individual would be, generally the better, in order to increase the likelihood of minimizing the frequency of such transfers (including, but not limited to, by delaying the onset of normal 'old age' post transfer). If inter-brain communication is aggressively tuned per the direction outlined in this Patent Application, the applicant infers that the creation of Mary-II-B will begin being possible any time within 8 or 10 years.

- [83] · Includes the possibility of rendering consciousness transfer across clones, which in principle would be the ideal form of consciousness transfer. That is because the technology to create clones is available today, and it would be supportive of this invention to create a young Mary-II-B when Mary-I has already reached a relatively senior age.
- [84] · Strictly excludes fancy considerations like transferring to a computer. That is not practical simply because the inherent hardware design of the modern day computer vastly reduces the likelihood of the hardware being able to sufficiently multi-process with extremely low consumption of energy to render the computer portable and otherwise feasible. In short, the modern day computer is completely counter to hosting cognition even remotely as optimally as human cognition in the human brain - the best modern day supercomputer does unacceptably more work than the human brain would for the same job.

Deliberations & clarifications

- [85] Important considerations in this invention are the following -
- [86] **a.** The same brain and body resources cannot be set to be simultaneously controlled by two separate logical consciousness centers. At most only one logical center of consciousness can take control at any one time. In extension, there can at one point be only one (integrated) logical (i.e. constituent components not physically delinked) center of consciousness as far as self identity is concerned. Refer 'f.' below.
- [87] **b.** It is not necessary for every bit of information in Mary-I's brain to be transferred to the second human. That is because human memory and personality are both plastic and are changeable. As long as a reasonable amount of information is transferred that would enable Mary-II-B to acceptably recognize herself, that would constitute a good start. Innate human cognitive capabilities would then naturally do the needful to attempt to build up a new memory bank and personality using that information. With the passage of time as newer and faster information transfer techniques are developed, Mary-II-B's brain (excluding prior information already in the second brain) would more closely represent Mary-I's brain at the time of transfer.
- [88] **c.** The technology to clone any human organ is already available today. Therefore, if the center of consciousness (namely the centromedian nucleus and allied components)

for any human brain were cloned and connected in parallel to the same endpoints in the rest of that specific brain (namely sending nerve fibers to the cerebral cortex, putamen, caudate, collateral fibers etc. and receiving nerve fibers from the spinothalamic tract, cerebral cortex, superior colliculus, reticular formation, globus pallidus, vestibular nuclei etc.) , would the sense of 'I' be adequately realized in the cloned center of consciousness such that the two parallel centers of consciousness could operate in the following ways?

- [89] 1. As one combined augmented logical center of consciousness. $\text{\textcircled{D}}$
- 2. As two separate logical centers of consciousness where each center remains aware of the other center and complete control of the resources (and hence of one's consciousness, and hence, by definition, of one's self identity) by any one center at one time is taken by voluntary joint consensus. $\text{\textcircled{D}}$
- [90] The applicant infers that the answer to both is 'Yes'.
- [91] As an extension, '1.' would be possible differently if the cloned center of consciousness were not just connected at the ends with the original but entirely merged with the original.
- [92] **d.** If, in addition to the center of consciousness, the rest of the entire brain were cloned too, such that initially each component still remained functionally part of the corresponding original brain such that the entire brain functioned as a 'super' brain with one consciousness, and then if the two sets of components were separated to form two separate exactly similar brains, would the original single sense of consciousnesses be copied in both brains and if so how would it be in relation to the original single sense of identity?
- [93] Obviously, with no physical connection between the two brains, the hitherto similar manifestations of the same consciousness would thenceforth develop into two distinct flavors of consciousnesses in separate ways from the point of separation. The original sense of self identity could remain in any one of the two brains, but never in both the physically disconnected brains at the same time. To rephrase, Mary-II-B can be manifested in at most one of the two physically disassociated brains.
- [94] **e.** Mary-I should select the individual to transfer to well in advance of her anticipated death, and effect transfer of all meaningful long term memory in advance. Following that, Mary-I should periodically transfer further long term memory since accumulated. Ideally this whole process should be undertaken with at least two geographically apart individuals to minimize the risk or not ultimately having any individual available to transfer to just prior to Mary-I's death.
- [95] **f.** Could Mary-I be transferred to multiple third party brains? The applicant infers that the answer is 'NO' as far as Mary-II-B, but 'yes' in the context if Mary-II-A. There HAS to be at most one single logical (i.e. constituent physical components not

delinked) center of consciousness where one can acceptably-self-identifiably transfer to at any one point of time. Therefore, while it is possible for multiple brains to function together as a whole (as earlier detailed), there HAS to be only one logical center of consciousness for them all as far as acceptable self-identification. That integrated logical center of consciousness doesn't have to necessarily physically be entirely in any one of the linked multiple brains, but suitably distributed across them all - non-functional individually but functional as a whole. Therefore when the physical link between the brains is broken - the actual transfer (towards Mary-II-B) would AT BEST be in only one brain - the other physically delinked brains can AT BEST have COPIES (towards Mary-II-A, that, as earlier elaborated, would not be acceptably-self-identifiable) of that original identity where SEPARATE, independent development would proceed from that point of physical disassociation. AT WORST, the transfer wouldn't happen at all, and the original individuals would just be left with new memories that they'd recognize as not theirs (since the memories would not involve them, but primarily Mary-I, and secondarily some of the other people in the set). What would NOT HAPPEN is Mary-II-B's manifestation in more than one separate brains.

[96] **g.** Could, following a transfer, Mary-I separately sense herself being present in both her original brain *and* in the second brain that is no longer connected to her own still alive brain? This is an extension of sub-query 'd.' and 'f.' above, and the answer is 'No' - she can be transferred as Mary-II-B to another brain while still alive, as long as she volunteers to let her own brain's center of consciousness give up control of her consciousness to the second brain's center of consciousness.

[97] **h.** In the context of a brain that has been devoid of all forms of external input to it since inception, would that brain have medically wake and sleep cycles, and if so would the brain have dreams in those sleep cycles? Extending upon the behavior of a human baby in the womb, it can be reasonably presumed that the brain probably would have sleep and wakefulness cycles, simply because that property appears to be genetically so entrenched in the system that it would manifest itself regardless of input. As far as dreams - the applicant infers that an entirely-input-devoid brain does not logically appear to be capable of any cogitation because there would be no basic rules framework in the brain's memory database that can be used to cogitate with - and since cognition appears to be logically impossible, dreams in the way we know it appear to be impossible as well. In other words, there would potentially be no meaningful difference between that brain's state of wakefulness and sleep/dreams. However, this inference is not directly related to this invention.

Technology enabled interbrain communication

[98] The applicant infers that **it is feasible to have two separate brains (learn to) com-**

municate ((at least) initially with active conscious will, to enable the brains learn to recognize the signals and hence the communications mechanism) in a micro-focused electromagnetic communications environment of multiple simultaneous signals of the appropriate strengths and frequencies focused at equivalent brain components in the two brains, as briefly expounded in the following paragraph.

Although neurotransmitters could potentially be used to render the process more potent, the applicant deems that essentially unnecessary given that the electromagnetic signals received would anyway enable the natural generation of the appropriate neurotransmitters as the brains deem necessary to process those signals.

- [99] Essentially, the detected output signals from the relevant components of one brain would need to be appropriately modulated and micro-focused on the appropriate input components of the other brain. That modulated input would be in the form of ultra-low voltage signals at compatible frequencies and strengths (and duration for transfer effectiveness (because transfer will not always be real time, but suitably time lagged mandated by the complexity (i.e. relevant ranges of frequency and strength mapped to physiological zones) of the 'sending' brain's emanated signals, the fuzzy logic feedback learning based, identification of the 'receiving' brain's internal physiological locations, modulated receiving frequency and strength)). It needs be noted that each of the two brains would alternately be the sending and receiving brain, for purposes of familiarization of the data contents, initially towards the objective of creating the integrated brain system with one center of consciousness, then for Mary-I to transfer onto the other brain towards creating Mary-II-B (and both brains will have already previously agreed to this transfer so that transfer would typically not need to be consequent to a new decision after the creation of the integrated brain). For speedier and greater practical effectiveness, brain-physiologically-functionally meaningful ranges of signals detected in the 'sending' brain should be modulated at meaningfully comparable strengths, frequencies and durations at the 'receiving' brain at the latter's corresponding physiologically-functional reasonably equivalent micro locations, over electromagnetic waves at least at the 'receiving' brain and preferably also detected as electromagnetic waves in the 'sending' brain (since electromagnetic waves would enable optimizing (the process of) interbrain signal interactivity over a meaningfully variable range of modulated strengths, frequencies and relevant physiological locations at the 'receiving' brain in the context of the counterparts of the 'sending' brain). Extreme accuracy of physiological locations will not be important (only) at the commencement of communications, just reasonable micro-focus on output/input brain components, as signal attributes can subsequently be tuned from the feedback of the participating individuals as well as automatically directly from the neuronal responses at the receiving brain, and furthermore the brains would learn to recognize the signals and optimally adjust for the

best sensing and interpretation of the signals. Operations research, numerical analysis and stochastic techniques, coupled with neural networks would optionally enable identifying the participant set specific fine tuned communication signal parameters, including, and of course not limited to, the component micro 3D coordinates internal to the corresponding brains. The logistical flexibility of using wireless electromagnetic waves at both the sending and receiving brains as elaborated in this section would enable the aforementioned computation premised search-and-find-for-optimality micro focus to be extended to if necessary the individual neurons, even to the level of the individual dendrite and axon (and allied) connections per neuron, but in the most part that would not be necessary because (a) there is sufficient neuronal redundancy of distribution of the same bit of information and (b) the equivalent location neuron counts across different brains would be substantially different so a super-micro-mapping would be inapplicable. The micro-focus process can even be expanded upon at the end (i.e. after appropriate focus maximization with electromagnetic devices) using atomic-and/or molecular particle based sensing devices, but that too would not be necessary in the most part. Search and find would essentially need to be targeted on the maximum feedback from participants and more importantly on the maximum automated neural responses at the receiving brain corresponding to the signal received from the output counterpart at the sending brain, upon commencing the process at the approximate focused locations of known input/output counterparts, and honing in with the stated mathematically optimized techniques premised on the nature of non-optimized (only to reduce the search time - search without mathematical optimization would also work but would take longer, potentially infinitely longer in a few cases) searches until the maximal feedback from the participants and more importantly the maximal neuronal responses at the receiving brain is obtained that would indicate a successful link for that specific micro-component input output pair at the corresponding brains. Again, the data transfer needs preferably be in both directions (either simultaneously and/or alternately) so the sending brain receives real time feedback from the receiving brain and adjust suitably. Furthermore, and separately, and as indicated elsewhere in this Patent Application, from a brain learning and managing perspective, the data transfer needs preferably be in both directions (again either simultaneously and/or alternately).

[100] As also indicated elsewhere in this Patent Application, as part of the connection process, the two linked brains are to be alternately (and sometimes jointly) rendered asleep or otherwise non-willed to allow each brain to learn to be aware of and function with the memory banks and consciousness components of the other brain.

[101] While electrodes could be useful for physiological zone counterpart mapping at the brains, they aren't necessary and are not recommended for this invention, because of the need to participant-specific-variably-micro-'search'-and-'find' optimized input/

output brain coordinates, which would be best possible with micro coordinate focused electromagnetic signals - that can (unlike with electrodes) be easily refocused anywhere - of the relevant frequencies, strengths and durations. Hyper fine tuned (per the above techniques) parallel connections of the consciousness- and memory bank relevant corresponding components (supported by the pertinent functional/communications accessories of course) in the two brains would be an additional consideration. Focus should primarily be on the regular communications channels internal to the brain (i.e. generally excluding the external input path components, for speed) so that key input information is laid down in a way that the receiving brain deems optimal, rather than using attempted 'forced' communications via channels not ordinarily used by the human brain which could result in the information not being stored properly.

[102] To the extent necessary, a chemical connection with neurotransmitters, as well as a direct neuronal connection could and should also optionally be considered, as a catalyst to manifesting and optimizing inter-brain communication.

[103] Although memory (and hence also the additional allied) data transfer is from a memory subcomponent buildup (i.e. bottom up) perspective (whereby the memory subcomponents are acquired with equal or more priority as/than are the higher memories that those subcomponents make), alternative consideration would be to allow the sending brain to consciously (and separately with altered, typically diminished, and at times raised levels of consciousness) 'load' (i.e. become aware of to a degree of clarity that may be perceived by the (other) brain connected to this brain) relevant memories from its data bank that that brain deems relevant to the transfer and then enable only those memories to be transferred to the other brain. The advantage of this process would be that information would be relatively easily recognized by the receiving brain. The shortcoming would be that the process would be slow, often not include much of the memory (because of the sending brain's need to selectively load a memory first), and needs to be appropriately set up to not compromise or otherwise hinder creating the integrated, augmented, logical center of consciousness - i.e. the center of consciousness of the receiving brain must be suitably tuned to not simply consider the perceived (by it - the receiving brain) memory uploaded by (and at) the sending brain akin to just seeing new images and store that information (in it - the receiving brain) without attempting to integrate with the sending brain.

[104] Again, the key here for feasibility would be not to reinvent the wheel, but provide a supporting environment (that can be easily optimized per feedback from the two awake brains) conducive to enabling the brains' neurons to do what is natural to them - optimally integrate and communicate.

[105] Any interbrain communication already patented, or otherwise not patentable, today is

excluded from the scope of originality of this section, but such technologies are firmly denied the right to be applied to any aspect described as being within the scope of this Patent Application (Ref. 'Fair scope of invention' and 'Specific steps in invention') without permission from this inventor.

- [106] Albeit already adequately clear above in this section appropriate additional technical elaborations on the above connection technologies may be provided with the non-Patent Application.

Special advantages of invention

- [107] This approach is in principle a guarantee to perpetual continuity of life, provided of course that a transfer is done prior to Mary-I's death. Even terminal physical ailments in Mary-I would not be impediments to that continuity, as long as Mary-I's brain is still reasonably functional. In fact even mental illness too would be naturally corrected as long as the transfer is done to a brain without mental illness.

- [108] **This invention pertains not to the speed of the process or emphasize on specific transfer mechanisms, but is the process itself.** With time, as the transfer techniques speed up, the procedure can be applied for emergency circumstances when the Mary-I assesses a high likelihood of imminent death, for example when in an airplane that is about to crash, etc. In such scenarios, Mary-I would immediately wirelessly functionally integrate with the other brain located elsewhere outside the risk zone, rendering her brain and the new brain a single functional entity and 'transfer' over.

- [109] The invention can subsequently be easily extended to primates or even animals of lower cognitive abilities.

What this Patent Application does not cover

- [110] This Patent Application does not cover the supporting technologies by themselves (that, when applied in the context of this Patent Application, would enable the brains to communicate) other than the supporting technologies that have been described in this Patent Application as being original - in particular in the section 'Technology enabled interbrain communication'. Unless the applicant subsequently acquires patents on those technologies themselves, other inventors are free to develop and patent those supporting technologies to the extent permissible by law and use them for purposes other than that described in this Patent Application. **However, all applications of current and/or future technology/-ies towards the following are obviously included within the lawful scope of this Patent Application: the scope of manifestation of perpetual persistence of human life as defined in the subsection 'Fair scope of invention'.**

- [111] Although as earlier affirmed, the entirety of this Patent Application contains the applicant's own views (except of course the already medically affirmed components of

consciousness of the brain comprising of the centromedian nucleus and the allied, and when implicitly or explicitly declared otherwise in this Patent Application) this Patent Application also does not cover any aspect of the justification/validation/proof of this invention that might already have been previously patented by others in any other context, or is not patentable.

[112] See 'Fair scope of invention' for details on the scope of inclusion of just Step A ('Fair scope of invention') or Step 1 ('Specific steps in invention') by themselves in this Patent Application.

[113] The coverage scope as detailed in 'Fair scope of invention' will not be superseded by this section or any other section of this Patent Application.

Claims

[Claim 1]

What is claimed is :

1. A novel method of medically perpetual persistence of essential human life.

The following two example schematics represent the formation of Mary-II-B in a single brain. Of course it is important to note that in this Patent Application it is in principle possible, albeit not practicable, to form Mary-II-B across multiple brains forming a single integrated center of consciousness.

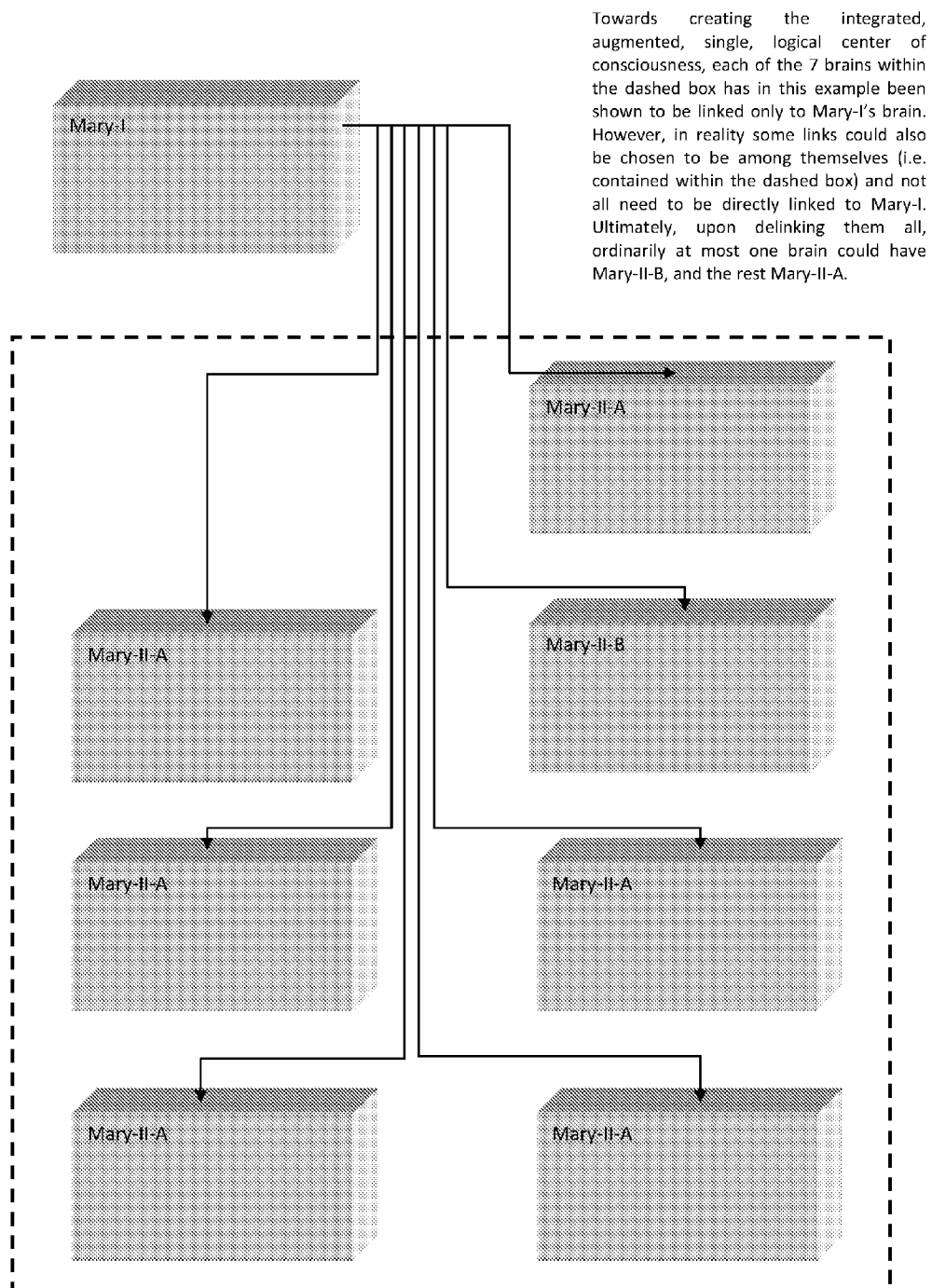


Figure 1

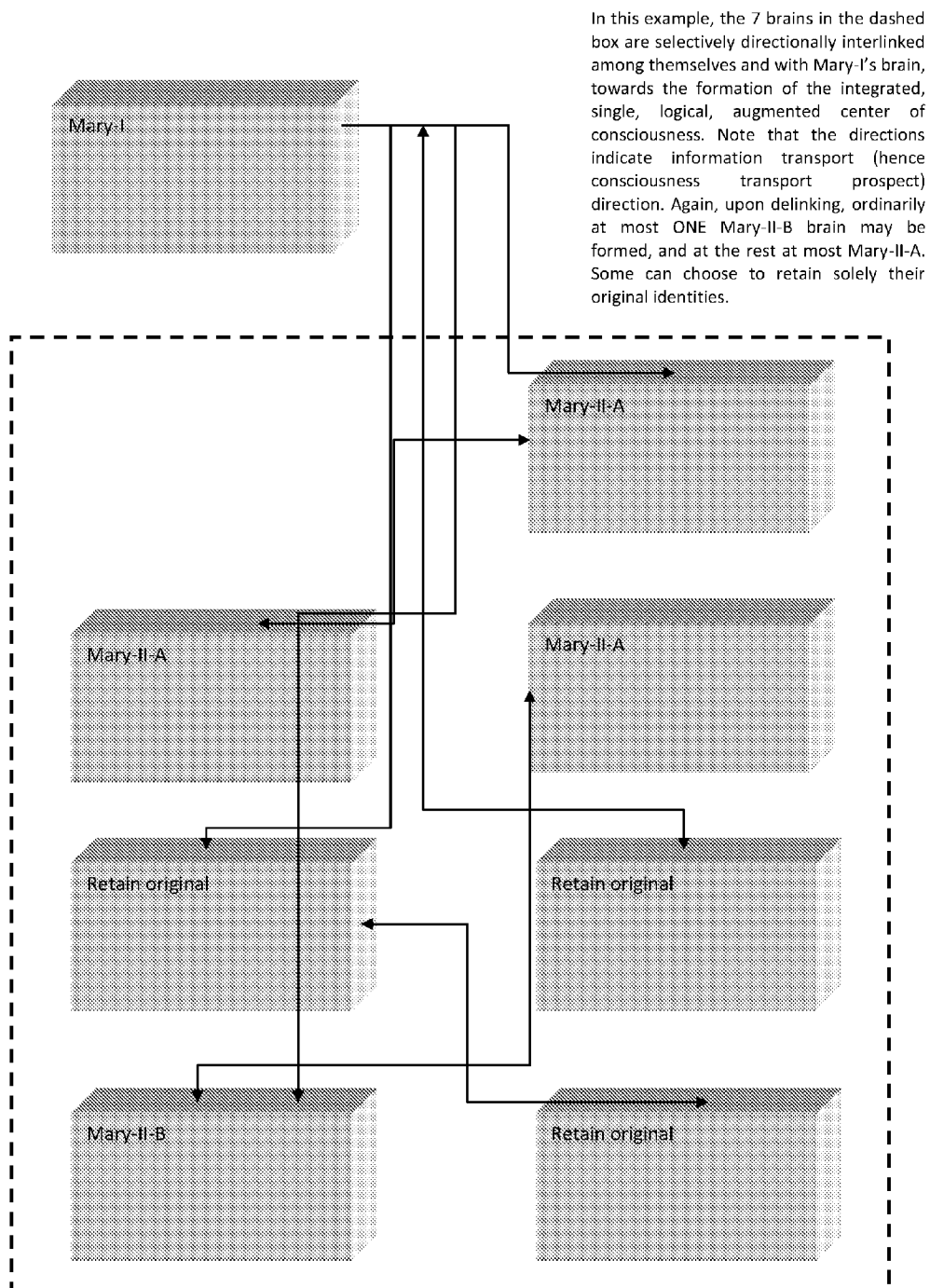


Figure 2

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and 39)

Applicant's or agent's file reference SC_MPPEHL	IMPORTANT DECLARATION	Date of mailing (<i>day/month/year</i>) 1 October 2009 (01.10.2009)
International application No. PCT/IB 2009/052355	International filing date (<i>day/month/year</i>) 3 June 2009 (03.06.2009)	(Earliest) Priority Date (<i>day/month/year</i>) 3 June 2008 (03.06.2008)
International Patent Classification (IPC) or both national classification and IPC A99Z (2006.01)		
Applicant CHOUDURY SPANDANCHOUDURY SPANDAN		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below.

1. ☒ The subject matter of the international application relates to:
 - a. ☐ scientific theories.
 - b. ☐ mathematical theories.
 - c. ☐ plant varieties.
 - d. ☐ animal varieties.
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
 - f. ☐ schemes, rules or methods of doing business.
 - g. ☐ schemes, rules or methods of performing purely mental acts.
 - h. ☐ schemes, rules or methods of playing games.
 - i. ☒ methods for treatment of the human body by surgery or therapy.
 - j. ☐ methods for treatment of the animal body by surgery or therapy.
 - k. ☐ diagnostic methods practised on the human or animal body.
 - l. ☐ mere presentations of information.
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.
2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☒ the description ☒ the claims ☐ the drawings
3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished or does not comply with the standard.
☐ the computer readable form has not been furnished or does not comply with the standard.
4. ☐ The failure of the tables related to the nucleotide and/or amino acid sequence listing to comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished.
☐ the computer readable form has not been furnished or does not comply with the technical requirements.
5. Further comments:

Name and mailing address of the ISA/ AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24 / 535	Authorized officer HUNGER U. Telephone No. +43 / 1 / 534 24 / 363
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