# If I Only Had a Brain:
# Evolving a Prefrontal Core-Text for the Internet

Owen Ambur, January 7, 2018

In the Wizard of Oz, Scarecrow laments his lack of a brain.

> *I could while away the hours, conferrin' with the flowers*
> *Consultin' with the rain.*
> *And my head I'd be scratchin' while*
> *my thoughts were busy hatchin'*
> *If I only had a brain.*
>
> *I'd unravel every riddle for any individ'le,*
> *In trouble or in pain.*
> *With the thoughts I'd be thinkin'*
> *I could be another Lincoln*
> *If I only had a brain.*
>
> *Oh, I could tell you why The ocean's near the shore.*
> *I could think of things I never thunk before.*
> *And then I'd sit, and think some more.*
> *I would not be just a nuffin' my head all full of stuffin'*
> *My heart all full of pain.*
> *I would dance and be merry, life would be a ding-a-derry,*
> *If I only had a brain.*

In *Change Your Brain Change Your Life*, Daniel Amen notes the *prefrontal cortex* (PFC) the most highly evolved part of the human brain -- is involved with focus, forethought, judgment, organization, planning, impulse control, empathy, and learning from mistakes. Deeper within our frontal lobes, the anterior cingulate gyrus (ACG) supports error detection and attention shifting. (pp. 4 & 5)

Deeper still within the prehistorically "older," less evolved part of the mammalian brain lies the *limbic system* (LS), whose functions include:

- filtering external events through internal states
- tagging events as important
- storing emotionally charged memories
- modulating motivation
- promoting bonding (p. 89)

The cerebral cortex gives us the capacity to problem-solve, plan, organize, and rationalize. However, for those capabilities to effect change in the world, passion and drive are required. The LS provides the necessary emotional energy. (p. 91)

As Daniel Kahneman and others have pointed out, much of what occurs in our brains falls below our consciousness and we commonly rationalize our behavior after-the-fact, under the influence of many cognitive biases. Thus, Dr. Amen notes, "Your automatic thoughts do not always tell you the truth." On the other hand, he emphasizes, "**You don't have to believe every thought that goes through your head**."

Instead, he says it is important to reflect on our thoughts to determine if they are useful or perhaps counterproductive instead. Moreover, he asserts, "**You can train your thoughts to be positive and hopeful** or you can just allow them to be negative and upset you." (p. 112)

No matter how old we are, Amen suggests having a sense of purpose may help us live longer. (p. 129) He cites a study ranging over 90 years in which the trait most highly associated with longevity was conscientiousness. Living the longest were those who consistently followed through with what they said they were going to do. (p. 138)

Like Sherry Turkle, many people fear the Internet, digital tools, mobile devices, and online dialogue have adversely affected our attentions spans and civility while exacerbating group polarization. To turn the phrase "all hat and no cattle," it seems as if the cyberworld may be all LS and no PFC -- driven by emotion rather than reflection, too much impulsive talk and too little conscientious action.

Dr. Amen notes the PFC is responsible for goal-directed, socially responsible, and effective behavior. It enables us to solve problems, see ahead of situations, learn from mistakes and, based upon experience, choose the most helpful alternatives. (p. 170)

It also sustains attention and directs focus on significant information while filtering out less important thoughts and sensations. Indeed, when we need to focus, it sends signals to quiet the limbic and sensory parts of the brain to decreases distracting input. (p. 171)

In summary, Dr. Amen concludes: "When the PFC functions properly, people can engage in goal-directed behavior and effectively supervise their words and deeds. They are able to think before they say things and tend to say things that affect their goals in a positive way. They also tend to think before they do things, and their actions are consistent with their goals. They tend to learn from mistakes and don't make the same ones over and over. In addition, they are able to focus and attend to conversations, follow through on commitments and chores, and organize their actions." (p. 302)

In *The Organized Mind: Thinking Straight in the Age of Information Overload*, Daniel Levitin says, "We humans have a long history of pursuing neural enhancement – ways to improve the brains that evolution gave us. We train them to become more dependable and efficient allies in helping us to achieve our goals." (p. xiii)

Along that train of thought, ***the time is ripe to begin to evolve and mature the Net to encompass PFC functions***. A good way for each of us to start is by documenting:

- the values that motivate us,
- our longer-term goals, and

- readily achievable near-term objectives, each of which contributes to achievement of our goals in support of our values.

Strategy Markup Language (StratML) is the applicable international standard (ISO 17469-1) for the documentation of such information on the Web. It can serve as the required prefrontal core-text/context for well-considered and well-coordinated action. StratML-enabled services can help us not only become more conscientious but also engage prospective performance partners more efficiently and effectively.

Existing *social* networking services enable us to share photos and videos, spew emotions, talk past each other in dueling monologues, engage in endless and perhaps pointless dialogues and to "like" and comment on each other's postings. On the Web, *contagion* – "going viral" – is taken to be a good thing, as if uncontrolled processes are a meaningful measure of success, thus begging the questions: So what? What next? More mindless contagion? [Why](#)? Toward what end?

By contrast, more mature *business* networking services will empower us to commit our time, money, efforts, and other resources to turbocharge the accomplishment of common and complementary, values-based objectives – on a worldwide scale.

> *When a man's an empty kettle*
> *He should be on his metal*
> *And yet I'm torn apart*
> *Just because I'm presuming*
> *That I couldn't be kinda human*
> *[If I only had a heart](#)* ...

It's not enough for the Net to serve the Tin Man's dream. A heart flowing with emotion will not suffice. To achieve greater good, we must collectively engage our brains in support of effective, well planned and efficiently executed action. That will require more than clicking our heels. However, as Dorothy learned in the [merry old land of OZ](#), we hold it within our power to make our wishes come true.

Regardless of what our objectives may be, StratML-enabled Web services will empower us to achieve them far more effectively than ever before possible -- in highly gratifying, values-focused, peer-based partnerships with each other.

Are you a software developer or an aspiring social entrepreneur? Would you like to help transform the world to become a better place? If so, have a heart and join our quest. Become a wonderful wizard by providing some of the [tools, apps, and services](#) required for us mere mortal munchkins to begin to realize the vision:

### *A worldwide web of intentions, stakeholders, and results!*