Reptile Brain

by Jamie Allen & Louise Emily Carver

Human intelligence is modelled by most technologists as a cybernetic system, with functional subparts. Common in this modelling is the idea that there are at least two brains, two intelligences, two symbiotic and competing neural structures synthesizing into consciousness. These two projected dichotomous structures go by many names, the "higher order" processes denoted by words like "rational", "civilized", "conscious", "sympathetic" and "lower order" processes differentiated against terms like "base", "primal", "instinctual", "parasympathetic", or "reactive". At least since the 1960s, when the intersection of cybernetic part-whole relations and evolutionary brain science arrived at Paul MacLean's Triune Brain theory,

these have been variously indexed to respective parts of the brain called the "neocortex" and the limbic system or, the "reptile brain". Although now considered an inappropriate denotation by much contemporary developmental neuroscience, the reptile brain remains a resilient idea in technology circles, influencing computational engineering practices that reaffirm and amplify its actuality.

Google's own former design ethicist, Tristan Harris, has written of the business and cognitive model of his former employer in terms of the desirability of interfacing to these higher or lower human intelligences. He asks, "Do you want to jack [it] into their reptilian brain, or do you want to jack [it] into their more reflective self?" This question implies that the attentional economics central to the internet and digital communications stimulate addictive patterns of use and repetition, intentionally addressing themselves to supposed "lower" orders of reflexive behaviour and motivational salience. Social and informational network enterprises and their market shares are dependent on the addictions they perpetuate. These same enterprises (Facebook, Google, Twitter, Amazon) monopolize contemporary communications systems, and they are those presumed able to define and model what human intelligence is, can, and will be.

What sort of artificial intelligences, therefore, are being fed on data generated through reified

polarized, reptilian mentalities—the dichoto-
mous, somewhat misleading separatism of what
is it to be a thinking human? If online interac-
tions, big data, and statistics become templates for
means of approaching General AI, as an unfold-
ing process of machines learning to think, in what
ways will the reptile be forever haunting and hunt-
ing human consciousness and desire, as it is taken
up into machines.