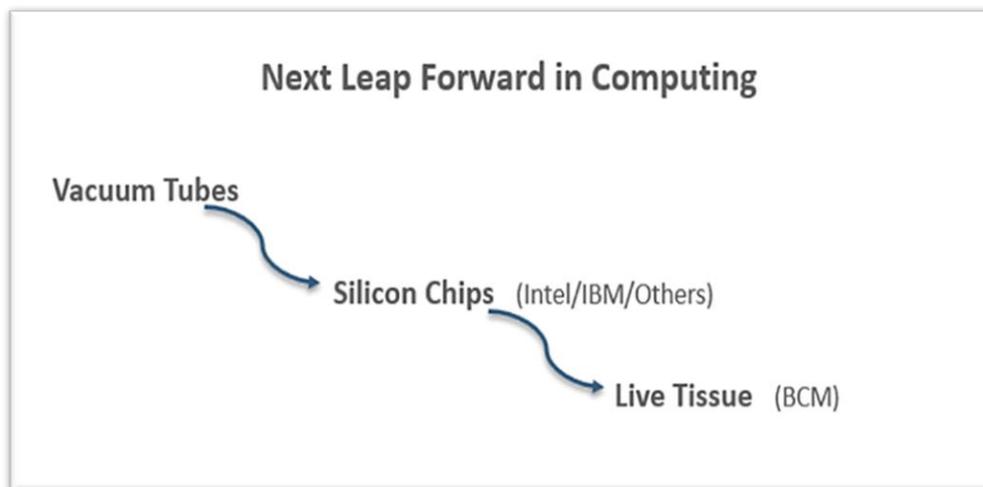




## Neural Processing Is The Solution

Many of the Fortune 500 companies, government agencies, scientific institutions, and leading universities are moving to neural processing – Google, IBM, Intel, Microsoft, Qualcomm, Samsung, and Amazon, to name a few. Neural processing is the next leap forward in computing, to handle highly complex tasks at speeds and throughput 1,000 times faster than classical digital computers. Everyone will benefit from this innovation.

To grasp the processing speed, if a digital computer requires 1,000 seconds (16.7 minutes) to complete a large processing task, a neuron processor would complete that same task in “ONE” second. By the time you finished clicking on the enter key to start the processing, the results would be on your screen. That is what 1,000 times faster means.

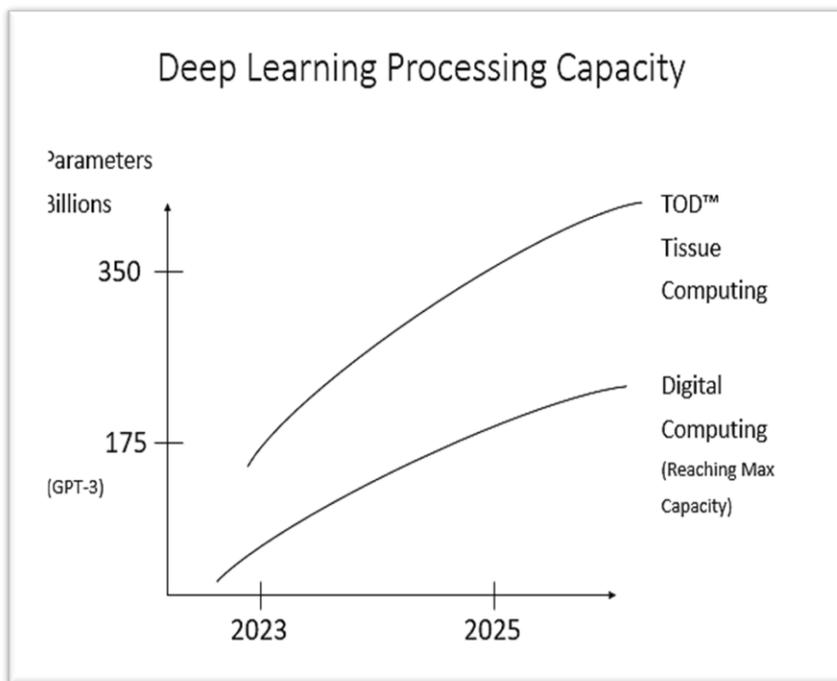


Intel and IBM have developed digital chips which emulate neural processing, available for the past few years. However, the forthcoming Tissue Operating Device (TOD™), which includes a Tissue Computer with millions of living neurons, will quickly move real (rather than simulated) neural processing to the forefront of computing. TOD™ delivers advanced, complex, computer power beyond anything imaginable from a digital chip computer.

Real neural processing will be unparalleled in delivering advanced computing solutions and massive improvements in performance. TOD™ provides application programmers with amazing tools and powers to perform highly complex analyses and find solutions to problems requiring computing power that simply isn't widely available now. These include expanded deep learning, adaptive thinking, accumulated knowledge, intuitive neural intelligence (rather than artificial intelligence) and more.

No inanimate digital chip will ever outperform a living neuron in computational capabilities. For example, GPT-3, the third version of the Generative Pre-trained Transformer deep learning model applies over 175 billion machine learning parameters to each usage. As illustrated in the Figure, GPT-3 is near the limit of digital computer processing capacity. But TOD™ offers almost limitless expansion of usage parameters beyond these inherent limits of digital architectures.

TOD™ processing powers extend to all forms of complex and Big Data processing. Furthermore, without any required digital formatting, TOD™, using sensor neurons, can directly process accept real-time or archived sensorial data in various formats: optical, audio, video, RF, inferred, thermal, sonic, seismic, and possibly more.



BCM is offering a family of TOD™ Models that range from Model 16, a small floor tower, with 16 million live neurons, to the largest, Model 5120, a Supercomputer powered by over 5 billion living neurons. TOD™ processing will be available to users as a cloud service, or by purchasing their own unit, which will provide greater privacy, security, accessibility, and control.

To learn more, please contact a BCM representative, or visit the TOD™ tab at the BCM Industries website.