Humalogy

Performance Optimization for Any Process

- What is it?
- How is it applied?
- Why is it relevant?
- How can it impact an organization's sales and cost of sales?
- What does the future hold?

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At the turn of the century, a widening gap between productivity and private employment showed up in federal labor statistics. Digital technologies boosted productivity in the United States without spurring the expected job growth.\footnote{Rotman, David. \textit{How Technology is Destroying Jobs}. MIT Technology Review. 2013.} While job growth slowed, productivity remained robust due to adoption of technologies like the web, big data, and the improved analytics – all made possible by the ever increasing availability of cheap computing power and storage capacity.

For years the promise of technology has been the ability to enable a more productive workforce. The challenge however is that while technology may improve productivity and efficiency by automating routine tasks, today it does not embody or transfer the human elements necessary for building interpersonal relationships. Humanizing technology is still in its infancy, therefore when trying to maximize efficiency and develop connectedness, there’s a careful balance that must be struck. Not all steps or activities in a given process require humanizing. Humalogy examines blending available technologies with human effort in the best parts of a process to maximize performance and potential.
Examination of Humalogy:

In this document we will explore Humalogy by answering the following questions:

- What is it?
- How is it applied?
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**Humalogy** *(hyoo-maw-luh-gee)*

The perfect blending of humanity and technology to optimize potential. Melding the head (information processing power) and the heart (human spiritual connection); the efficient use of machines, and humanity's sensitive understanding of emotions.

**Humalogy – What is it?**

The plow had been around since long before the time of Julius Caesar, however until the 1840s each plow was built individually by blacksmiths. In 1837 an Illinois blacksmith named John Deere built a steel plow with a new design. In 1839 Deere built ten plows based on his new design by hand. Two years later, Deere received orders for 75 of his plows. In 1842, when Deere produced 100 plows, he decided to change his focus from blacksmithing to manufacturing. By 1849, Deere’s production rate was up to more than 2,000 plows. Deere’s improved plow increased the
acreage that a farmer had time to cultivate due to the efficiency of his technology. 

During the agricultural revolution, 70% of American workers lived on a farm. Today automation has eliminated all but 1% of those jobs, replacing them with machines. What happened to the people? Many took jobs in plants, building the very machines that replaced them.

Fast forward to our current economy; many plant workers are being replaced by robotics and other forms of automation. The pace of change and advances in technology have made it possible to accelerate processes through automation, enabling lean work environments. It's not an option but a must; increases in competition from globalization and technology-empowered businesses have intensified the challenge to lean workforces, improve productivity, extend reach, as well as maximize time and availability of resources. When demand or need dictates, a business must be ready and capable to respond to constituents or potentially suffer losses to a growing number of competitors. The market is awake 24 hours a day and, like it or not, businesses must be responsive.

Digitization - extended through the internet, cloud computing, social technologies, mobility and other innovation - has changed the dynamics of engagement. Pervasive data and access to information enables consumers to easily explore solutions without the need of a sales person. Digital transformation also empowers anyone who is capable of shaping or leading the thoughts of others the opportunity to do so. Thought leaders are able to inspire consideration of problems and solutions to challenges that the business or consumer may not have known existed or that had a solution available. The key enabler of speed and these

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changing dynamics is technology, which can be a double-edged sword

Consider the situation below:

“If you’re an existing customer, press or say ‘one’. If you’re a new customer, press or say, ‘two’. Please enter your account number and then press pound…”

We’ve all been through the exercise described above before. You go through several choices, enter your account number, and when customer service finally answers, the first question they ask is, “May I please have your account number?”

When you’re frustrated with a product that isn’t working correctly, the last thing you want to do is work with a system that doesn’t work, right? Humalogy is the blending of humans and technology to optimize performance, ensuring balance between human characteristics that maximize connectedness as well as technology for improving efficiency and increasing productivity.

How is Humalogy Applied?

To discuss application of humalogy, Future Point of View has developed a scale to identify the best balance between humans and technology for specific jobs, processes, or functions. In nearly everything we do, there is an optimal blend between humanity and technology. Some jobs lean very heavily on humans (H5 on the
Humalogy Scale pictured below) and others are primarily reliant on technology (T5). An H5 job does not necessarily mean zero technology is used, just as a T5 doesn't mean no human effort is required. Someone may have to program or operate the machine and monitor it. For example, a robot exploring a volcano before it erupts may be remotely operated by a human at a control station. A situation like this would likely be around a T4 on the scale; while the robot does most of the exploration work, the intelligence of a human would be needed to make decisions about where to find the best data, and to make adjustments in the middle of the exploration based on unexpected factors that arise.

Depending upon the situation and the available technology, certain jobs or processes may be better handled by either a human or technology. If the only way the job can get done is through a human, then that job would be an “H5”. It's really hard coming up with an H5 job. What came to mind is a mother nursing a child, but that's not to say that a baby couldn't receive nourishment another way that included the use of technology. For example, a breast pump could be used, a bottle could be stored in the refrigerator, a microwave could be used to warm a bottle, and anyone could administer it to the child. In this case the job might be a H2 or H3. However, note that there is a certain intimacy as well as human quality that is lost and not transferred when technology replaces the human, and making conscious, intentional choices about this very trade off is the essence of finding the proper humalogical balance.

Consider the job of farming in the early days. It may have started as an H4 until the plow came along moving it to an H3. Then as additional tools and machinery were introduced, the job moved to the left, or the “T” side of the scale. Recognize however that the rating may be an average of separate ratings from each step in a defined process. Each step in a process may have a different rating.
By defining where processes are on the Humalogy scale, it becomes easier to determine where to apply technology in order to drive efficiency, scalability, or repetition because we actually have a vocabulary to at least ask the question, “what if we moved from an H1 to a T2 score for a process.” At the same time, in our technology-augmented world, we need to be conscious that some processes can be improved by adding the human elements that supply empathy, innovation, and trust building. For example, if our task was to establish an automated call center to filter calls efficiently and design a process as a H1 or H2, we might be able to achieve efficiency and cost control, but we would anger many customers and, in the end, would lose more money than we saved with the cost of augmenting the task with technology. The reality might be that H3.5 is the right balance in this example, and we now have a way to at least communicate with each other about this concept.

Humalogy application considers what's best handled by humans versus technology. Consider these two thoughts:

- Human work involves cognitive processing of information (e.g., a chef who tastes a sauce and adds a dash more of rosemary and a pinch more of salt, or an attorney, after watching a jury and hearing testimony, determines to file a motion).
- Computers execute rules or processes; (e.g., If “this,” then “that;” or if the temperature reaches a certain threshold, adjust the heat and add .2 ounces of this ingredient).

Tasks better suited to machines or technology might include:

- Repetitive, mechanic tasks (e.g., placing and twisting screws on an assembly line, or answering and directing similar support questions through a company’s automated customer service system).

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● Tasks too dangerous or simply impossible (e.g., diving to extreme depths to repair wells, drones for warfare, certain space exploration projects).

● Tasks requiring too much rationality or data analysis (e.g., thinking through probabilities and risk to recommend rational choices; complex modeling like climate change scenarios, impacts from financial market intervention, or optimal oil drilling locations).

● Tasks too large or too small (e.g., clearing debris, warehouse storage and retrieval, nanorobots for delivering highly-targeted chemotherapy).

Tasks better suited for humans would include:

● Tasks that involve thinking (i.e., computers may out compute humans, but we are able to reason separately from logical thinking).

● Social or emotional intelligence (e.g., reading cues and emotions in social responses, complex abstract thinking, developing relationships and trust).\(^5\)

● Creativity, intuition, and improvisation (e.g., an abstract task requiring problem solving, intuition, and persuasion, or a manual task requiring situational adaptability like security personnel or a home-health service worker).

**Humalogy – Why is it relevant?**

The easy answer for “why is humalogy relevant” is to amplify profits by both raising top-line revenues while also creating a more lean organization that lowers bottom-line costs, however the benefits stretch well beyond profitability.

We live in a “now” society. While patience is a virtue, the length of time someone is willing to wait before receiving satisfaction is decreasing. Businesses are required to maximize process efficiency, quality standards, and response times if they intend to be competitive. The expectation is that, at least at some level, people want to be able to access information when they need it; 24 hours a day, seven days a week, 365 days a year. The demand for instantaneous solutions, or at minimum acknowledgement of a problem and a resolution estimation, is on the increase. Technology enables scalability, availability, and global access to allow self service at the time of need.

As in our example discussed previously, with a goal to lower costs, many customer service organizations have chosen to utilize technology extensively. While it can be claimed this was meant to provide greater access, availability, and service to customers, improper balancing of technology and humans to handle customer service engagements actually leads to more complaints according to research. If the methods deployed are not carefully examined and Humalogy is unplanned, what may have been intended for good could result in catastrophe.

For at least two decades, technology has been shifting influence away from sellers to buyers and consumers. This change in buying and selling dynamics minimizes personal engagements between buyers and sellers while also delaying initial personal interactions until much later in the buying process. The seller does not control this shift but instead the buyer is empowered through their access to information and knowledge resources. This will be expanded upon in the next section of this white paper.

Anyone desiring a media platform has the power to voice their opinion and have it heard by millions of people instantly. If it wasn’t enough that a large majority of people have a

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camera on their phone, the introduction of Google Glass as well as other first-person capture and transmission devices raises the ease with which any person can share their experience of good or bad service.

Humalogy is not only relevant but also critical to defining business processes so that organizations are able to meet the competitive pressures and expectations before them. This need will only accelerate over time.

**How Does Humalogy Impact Sales and Cost of Sales?**

The platform for selling has been steadily evolving. In the 1970s to early 1980s, the focus was on relationship-based selling. Later, it shifted to need-based selling with the introduction of S.P.I.N. (situation, problem, implication, need-payoff) selling. You still needed to have relationships, except with S.P.I.N. selling you needed to ensure an understanding of their needs. The mid 1980s to early 1990s shifted to solution selling; finding (or creating) pain and then offering a solution to heal it. Enterprises began to recognize the need to capture information that previously only resided in the seller's head and offer the promise of better opportunity tracking through salesforce automation. That eventually evolved into Customer Relationship Management (CRM) -based selling.

While many of the best practices evolving from historical sales thought-leadership remain valid today, the challenge is that buyers are no longer hostages to receiving information from sellers. They are empowered with pervasive informational sources. Silo-oriented sales, marketing, and customer care processes have to make way for integrated,
technology-augmented sales facilitation models. We call this Socially-Facilitated Selling, or SFS. SFS models shift the nature of selling. The questions are no longer, “where can I find new customers,” but instead, “where can new customers find me?” Instead of, “how can I sell to more customers,” the question shifts to “how can my customers sell for me?”

Buyers no longer want to be disrupted by sales people unless they see them or their company offering thought leadership about the topics important to them. They discover the relevance of the resource through the web, social platforms, and other online resources as well as through personal engagements. If your buyers are not fully in this digital research place today, they will be soon. Allowing your competition to react better to the Humalological combination of sales people and technology in the sales process could be a devastating mistake. It leaves you exposed to competitors who embrace technology and gain market share. The danger can be compounded by non-traditional sources that may or may not even be in your immediate market space (outliers).

**What Does The Future Hold?**

There are a number of theories that examine technology, the pace of change, and superintelligence. The Singularity is one such theory; the thought that computer intelligence will one day exceed human intelligence. Some predict that this point will occur in the next 20 – 30 years.⁷ Regardless of the timeframe, or the possibility of this occurring, today individuals and businesses face a dilemma and something has to give.

Businesses are under pressure to maximize profitability, increase shareholder value, and

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develop strategic models for producing sustainable growth. Whether it's a business-to-business (B2B) or business-to-consumer (B2C) selling model, finding the most efficient means of serving constituents throughout the customer lifecycle demands leveraging technology. Technology advances at a rapid pace, continuously producing opportunities to overcome limitations. At the beginning of this century the smartphone was in its most primitive form; there were no iPads, iPhones, or Android devices. Facebook and LinkedIn didn't come around until a least a couple of years in. Robotics required hefty investments beyond the initial purchase, including programming and maintenance costing hundreds of thousands of dollars. Most robots had to work behind a cage due to the difficulty in mixing them with a human workforce. Today Baxter, a new robotic technology, costs a little over $20,000 dollars, requires no programming, learns through observation or guided instructions, and can safely work alongside humans.  

The world is changing rapidly and the one thing machines do not do today is feed capitalism with money they have earned; people still determine with whom they will do business and partner. They seek satisfaction - high-quality products and services - from the loyal business relationships they have. The degree and placement those relationships are changing, but human connection is still and will remain relevant. It's becoming more important than ever to understand precisely how to apply those connections, when to apply, and how much application is needed.

Business leaders need to understand technology and how to best apply it to their businesses. It's no longer a responsibility than can be tossed over to IT to handle due to the strategic implications and potential it holds. Humalogy examines these changes and must be continuously examined to determine where and how to best invest in the future of business.

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8 How Baxter is Different. rethink robotics.
For more information on how to balance Humalogy in your operations, contact Future Point Of View at info@FPOV.com or (405) 359-3910. We deliver vision you can use.