DIGITAL LABOR SERIES

What is Digital Labor?

Abstract

Digital Labor solutions have reached an inflection point in the market forcing us to relook at all aspects of the way we think about the ways services in the marketplace are structured, organized, delivered, managed, and procured. At RUMJog Enterprises, we are launching The RUMJog Digital Labor Initiative (RDLI).

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Digital Labor Series: What is Digital Labor?

Introduction

At RUMJog we are launching the Digital Labor Series of articles that will discuss the emerging trend of labor automation and rapid replacement of classical Knowledge Workers with software and business platforms. This is part of the RUMJog Digital Labor Initiative that we just launched.

Why did we launch the RUMJog Digital Labor Initiative?

Digital Labor solutions have reached an inflection point in the market forcing us to relook at all aspects of the way we think about the ways services in the marketplace are structured, organized, delivered, managed, and procured. At RUMJog Enterprises, we are launching The RUMJog Digital Labor Initiative (RDLI). To address these changes, RUMJog will launch several components to support the RDLI:

- RUMJog Digital Labor Challenge
- RUMJog Digital Labor Assessments
- RUMJog Adaptive Sourcing Initiative
- Collaborative Contracting Initiative (JV with the Outsourcing Institute)
- RUMJog Market Briefings
- RUMJog Radio - Digital Labor Show

Digital Labor Series - What is Digital Labor?

Digital Labor is term that is meant to convey an ever increasing trend in the delivery of labor based services in the global economy. In the Digital Labor trend, software and software based platforms are replacing knowledge workers at an accelerating rate. The Digital relates to the software aspect — the Labor relates to the jobs that are being affected — hence the term Digital Labor.

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Is Digital Labor the same as Automation? No, Digital Labor includes Automation, but it is much more than that. To understand the difference, we need to understand the characteristics of automation.

What is Automation?

Merriam-Webster defines automation as “the technique of making an apparatus, a process, or a system operate automatically”. In practical terms think of a task or function that historically was performed by labor, that is now done automatically by the device, platform, or tool — this is automation.

- In a car, cruise control is a form of automation

In most cases, automation does not replace the need for labor entirely. However, it does increase the productivity of the labor which leads to lowering the amount of overall labor (i.e, jobs) required to perform a process. The more structured a process, the more that process can be automated. When the process has to adapt or adjust to a base set of rules, then usually labor is involved.

- In a car, even with cruise control, the driver still needs to steer based on road conditions or traffic.

So then what beyond Automation would qualify as Digital Labor? Digital Labor comes in the form of Autonomic and Cognitive constructs.

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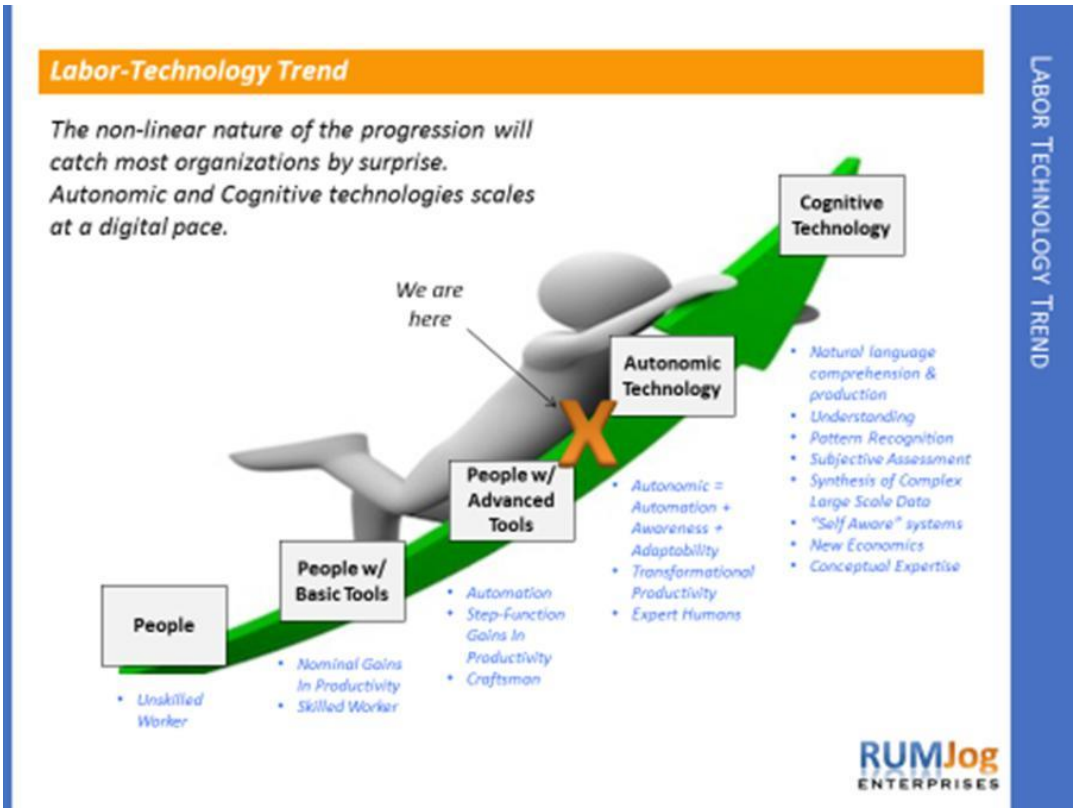

What is Autonomics?

Autonomic computing is a term coined by IBM in 2001. Autonomics includes three characteristics, the three A's:

- Automation
- Awareness
- Adaptability

It is the combination of these things that constitute Autonomics and the first aspect of Digital Labor. Awareness of the environment and the ability to decipher conditions coupled with the ability to Adapt the Automation is a tremendously powerful combination. This powerful combination goes beyond making labor more productive; it replaces the need for labor.

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- In a car or plane, auto-pilot capability is autonomic. The car/plane can drive/fly itself and there is no need for a driver/pilot.

Autonomics is transformational to the design of service delivery models. When labor is minimized or eliminated, costs, cycle times, and defects (relative to labor based models) trend to zero. We call this the RUMJog Zero Concept. Autonomics and the Zero Concept then combine to drive truly dramatic changes to services that have historically relied on labor. The impacted labor, mostly knowledge workers, cannot compete with zero.

Is Autonomics real?

Autonomics is rapidly expanding in various service supply chains. Today the biggest impacts are in technology services, like IT operations. Tomorrow, the impacts will explode into a variety of other business processes. For example:

- Banking (mortgage processing, derivatives management, regulatory compliance, etc.)
- Insurance (underwriting, account maintenance, regulatory compliance, etc.)
- Healthcare (patient administration, triage, diagnosis, administration, etc.)
- Telecommunications (active security, dynamic infrastructure, etc.)
- Back office functions for all industries (financial management, book close, SAP admin., HR functions, etc.)

We are in the early adopter stage of Autonomics in these industries and early deployments see reductions on cost of services in the range of 30%-50% from labor based models. Additionally, the performance of an Autonomic system far exceeds even the best labor models.

- Autonomics: think 1/2 the price, twice the output.

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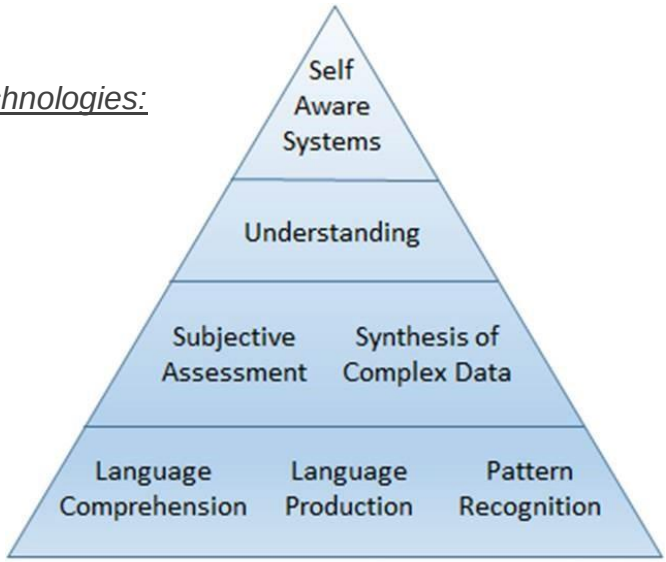
Too good to be true? We are just getting started — Cognitive Technologies are right around the corner. Cognitive Technologies take Digital Labor into warp speed and make Autonomic solutions look primitive by comparison.

What are Cognitive Technologies?

Merriam-Webster defines Cognitive as "of, relating to, being, or involving conscious intellectual activity (as thinking, reasoning, or remembering)". Basically, Cognitive Technologies move us to the point where software and platforms start to "think and behave" like the human brain. This allows the system to not only perform functions without the intervention of human-based labor, but solve problems against a goal set in ways that are unique and not pre-defined.

There are seven aspects to Cognitive Technologies:

1. Natural Language Comprehension
2. Natural Language Production
3. Pattern Recognition
4. Subjective Assessment
5. Synthesis of Complex Data
6. Understanding
7. Self-Aware Systems



Cognitive Technology Pyramid

Cognitive Technologies are rapidly progressing up the pyramid with the cutting edge sitting between Subjective Assessment, Synthesis of Complex Data, and Understanding. The achievement of a Self-Aware System could be defined as "The Singularity" and that is probably 5-15 years away depending on how one defines it. At the bottom of the pyramid, we are already seeing commercial applications of Language

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Comprehension with software like Siri on the iPhone and many Voice Response Units (VRUs) at your favorite customer care 800 number.

When you think about cognitive technologies, think science fiction meets reality. These systems will be self-learning, self-coding, self-evolving, and will do so at ever increasing machine speeds.

An example of an advanced cognitive technology could be something that involved the ability for a smart machine platform to be “aware” of system conditions, perform predictive analytics, determine if the outcomes are harmful/beneficial to the goal set, and proactively (without human intervention) act to mitigate or enhance the outcomes — all in real time. Apply the paradigm to security and you can imagine how we might be approaching the sci-fi concept of pre-crime from Steven Spielberg’s Minority Report.

Let’s come back to today:

1. Automation is not new to the ecosystem having been around for decades and continues to provide incremental improvements to many service delivery models.
2. Autonomics is new to the ecosystem and is providing transformative benefits to the ecosystem.
3. Cognitive Technologies are coming soon and promise to have mind blowing impacts on virtually every ecosystem.

Digital Labor will come in two waves - (1) the Autonomic Wave and (2) the Cognitive Wave. Being digital, these waves will scale much faster than many of the analog automations that have driven our economy the last few decades.

Stay connected at **www.rumjog.com** for updates and information about our upcoming Radio Show on Digital Labor. For further information contact us at RUMJog Technologies – **info@rumjog.com**

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About the Author

Thomas Young, Founder & Managing Partner

Thomas is the Founder & Managing Partner of RUMJog Enterprises, a technology, media, and public sector management consulting company launched in 2013 to help businesses adapt and thrive in the face of accelerating change in today's market. Prior to forming RUMJog, Thomas was a Partner and Managing Director at TPI & ISG for over 12 years, holding a variety of leadership roles in the Americas.

Thomas has more than 20 years of consulting experience in the IT Services industry with a focus on Financial Services and holds a Master's Degree in Systems Engineering from Rutgers University.

RUMJog Enterprises was created as a parent company of a portfolio of next generation firms designed to re-invent the way business is done to better serve the big players in the services industry looking for true business transformation.

Thomas specializes in area of emerging technologies with particular focus on process and labor automation and the impacts on business ecosystems.

Additionally, Thomas currently advises several other organizations like Becton Dickinson, IPsoft, IBM, British Telecom, Wipro, HCL, KPMG, and others.