BGV

Enterprise 4.0: A New Paradigm

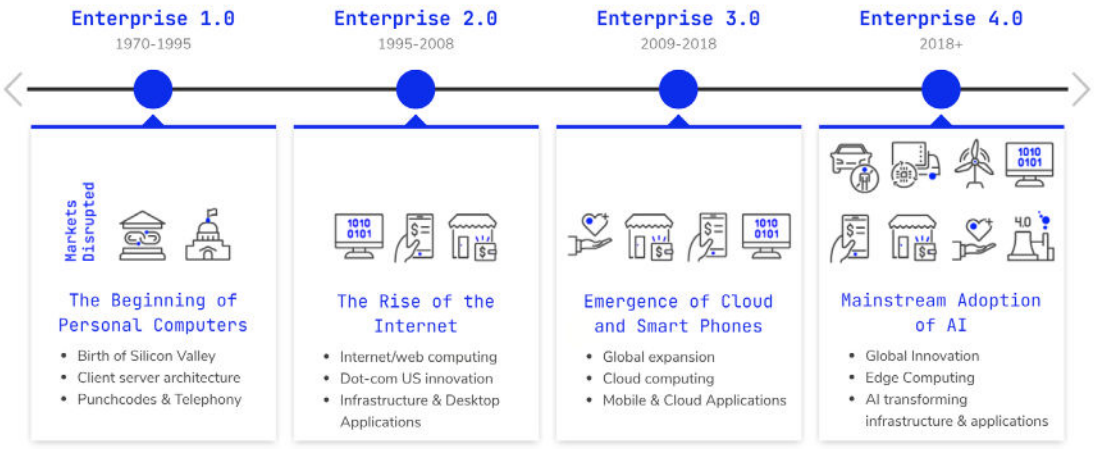
Enterprise 4.0 refers to a new wave of B2B startups that combine artificial intelligence, intelligent automation and proprietary access to data to deliver actionable insights for enterprise businesses. These disruptive startups provide full stack solutions in the form of hyper-niche vertical solutions, programmable cloud infrastructure or cloud-native security innovations to generate immediate business value and significant ROI improvements for their customers.

Digital transformation is enhancing the enterprise's ability to react faster to customer demands and gain market share. With the adoption of Artificial Intelligence, computers can see, hear touch and move—no doubt they will soon think in ways that few business leaders are prepared for today. AI is increasingly being "embedded inside," revolutionizing a broad range of enterprise product categories across key dimensions—voice, computer vision and robotics.

The collision of digital and physical worlds is affecting every dimension of society, commerce, and personal life, creating a fertile ground for the emergence of Enterprise 4.0 startups. In many cases, vertically integrated enterprise AI startups will drive productivity in leaps and bounds very much like what Amazon did in retail by merging the physical and digital worlds of brick-and-mortar and online stores.

The Cycles of Enterprise Technology

As we look back, we believe there have been four cycles of enterprise technology innovation since the early 1970s, and we are now entering the fourth cycle—Enterprise 4.0 (see chart below). The 1.0 phase witnessed the birth of Silicon Valley driven by mainframe and PC computing hardware and software companies. The 2.0 and 4.0 phases saw companies that were infrastructure and big data-centric, with budgets and initiatives focused on building out critical infrastructure like internet, mobile and cloud. We believe that to prosper in the new era of Enterprise 4.0, entrepreneurs and investors need to understand where the conventional wisdom that brough success in the previous enterprise eras still applies—and where it does not. Simply extrapolating a straight line from the lessons of past-era enterprise models will not be a predictor of Enterprise 4.0 success.



The BGV team's deep experience in building and scaling global enterprise 1.0 and 2.0 companies as operators coupled with the investment experience in building and scaling enterprise 1.0 and 2.0 companies as operators coupled with the investment experience in building and scaling enterprise 2.0 and 3.0 cross-border companies provides us with unique insights on what is required for success in the Enterprise 4.0 era to source, invest, build and scale successful enterprise technology companies.

How Enterprise 4.0 is Different

VERTICAL MARKET DISRUPTION

Disrupting traditional vertical market with unique insights.

We believe that as AI enters the era of implementation, Enterprise 4.0 startups will be biased towards disrupting vertical markets for several reasons:

- Horizontal platforms will be deeply capital-intensive and will be targeted by large corporations with deep budgets and talent, for example DeepMind, Watson, TensorFlow and others.
- Vertical applications will require specialized domain expertise, applications and novel data sets apply AI to deliver on enhancing or disrupting existing value propositions.
- Presence of large opportunities—i.e. vertical market laggards that are under-served and ripe for technology disruption.

FULL-STACK

Building full stack solution that address whole product solution.

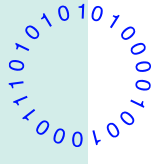
Unlike in the previous eras, enterprise customers will not build the internal competencies to adopt and integrate complex technologies due to a combination of scarcity of skilled resources (data scientists, DevOps teams) and the associated system integration complexity. As a consequence, 4.0 startups will need to develop full-stack solutions that leverage existing systems of record to capture novel data sets, while making it easy of the customer to consume this technology with superior UI/UX coupled with automation of workflows. In many cases, early-stage companies will need to offer professional services to reduce adoption friction while incorporating these services into the solution stack over time. This will require investors to think differently, and not to blindly invest in "product-purist" business models, as the model won't always hold up in Enterprise 4.0.

BUSINESS VALUE DRIVEN

Focused on business solutions and value generated.

During the Enterprise 2.0 and 3.0 eras, cost-effective access to skilled technical talent in SV was not a bottleneck for early-stage startups. Today this is no longer the case as startups face intense competition for recruiting technical talent from the likes of Google, AWA SFDC and Amazon. The emergence of innovation hubs outside Silicon Valley—Israel, India and Western Europe—will offer points of R&D leverage to address talent constraints highlighted above will drive many Enterprise 4.0 startups to be founded outside Silicon Valley or to leverage offshore R&D during early days. Finally, the nature

These companies will disrupt vertical markets, will be focused on business outcomes and deliver full-stack solutions on top of existing systems of records.



of the workforce itself is changing, form desktop in enterprise 2.0 to mobile in Enterprise 3.0 to a distributed workforce in Enterprise 3.0. This is leading to more distributed companies being built from day one. For distributed Enterprise 4.0 startups outside Silicon Valley, there will be strong need to be anchored in Silicon Valley for customer/partner ecosystem engagement, capital raising and ultimately M&A and exits. Investors anchored in Silicon Valley but with experience in sourcing, investing and building distributed cross-border companies will be more able to empathize and work effectively with such Enterprise 4.0 entrepreneurs.

What an Enterprise 4.0 Startup Looks Like

Enterprise 4.0 will in many ways be different than its previous era counterparts. Companies driving value creation in this category will share several common traits. These include:

EMBEDDED AI

AI Inside (voice, computer vision, robotics)

UNIQUE DATASETS

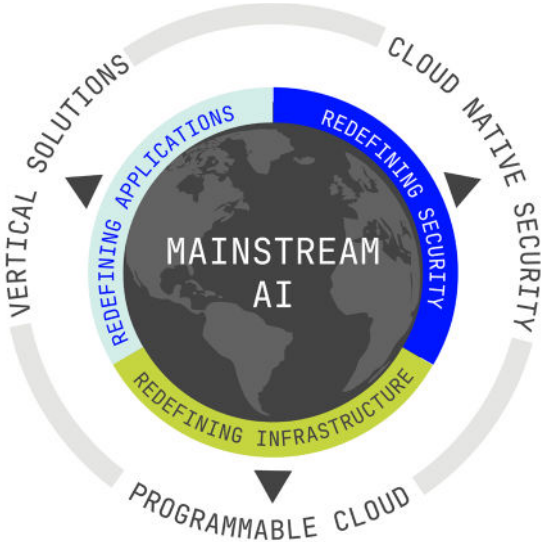
Proprietary access or generation

INTELLIGENT AUTOMATION

Incorporating automated workflows that get better over time

Delivering the above traits will require Enterprise 3.0 startups to be built and grown differently than Enterprise 2.0 and 3.0 companies in specific ways. For example, they will need to deliver a full stack solution by filling in technology gaps in-house, build efficient data labelling competencies, and often providing the data service required to leverage these new data sets to ensure early adoption and to compensate for the lack of AI expertise in most industries. A lot of these companies need to have a global distributed workforce, given that the companies and industries they are disrupting are global in nature.

Enterprise 4.0 companies will also need to deliver on unparalleled user experience—UI/UX front ends that translates complex technology into very simple and intuitive customer interface. Finally, these startups will need close partnerships with early adopter marquee customers who share their vision of transforming industry and are ready to share their historical datasets. Enterprise 4.0 entrepreneurs will need true “value add” VC partners on their company-building journey, investors who can see into the future, share and shape their vision, and patiently help them navigate the road ahead. Ideally these will be VCs who have had operating experience in building and investing in Enterprise 1.0, 2.0 and 3.0 companies, along with the DNA to build distributed technology companies conceived inside and outside Silicon Valley.



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