

6-11-2016

## FROM GAZELLES TO UNICORNS: MAKERS OF THE (NEW) ENTREPRENEURIAL REVOLUTION

Minet Schindehutte  
Syracuse University, USA, mschinde@syr.edu

---

### Recommended Citation

Schindehutte, Minet (2016) "FROM GAZELLES TO UNICORNS: MAKERS OF THE (NEW) ENTREPRENEURIAL REVOLUTION," *Frontiers of Entrepreneurship Research*: Vol. 36 : Iss. 11 , Article 1.  
Available at: <https://digitalknowledge.babson.edu/fer/vol36/iss11/1>

This Paper is brought to you for free and open access by the Entrepreneurship at Babson at Digital Knowledge at Babson. It has been accepted for inclusion in Frontiers of Entrepreneurship Research by an authorized editor of Digital Knowledge at Babson. For more information, please contact [digitalknowledge@babson.edu](mailto:digitalknowledge@babson.edu).

## FROM GAZELLES TO UNICORNS: MAKERS OF THE (NEW) ENTREPRENEURIAL REVOLUTION



*M. Schindehutte, Syracuse University, United States*

### ABSTRACT

This historically-informed study examines how entrepreneurship has taken hold and developed different forms during different time periods, particularly its most recent manifestation of so-called unicorns (VC-backed private companies with billion dollar valuations). Using the intersection of history and biography as a theoretical lens, we compare companies from two analytically distinct eras—the dot.com era (1985-2000) and the unicorn era (2000-2015)—to determine when, why, and how, the form of entrepreneurship as practiced in society changes, and with what effects. This historiographic approach reveals diverse generational units of entrepreneurs and prompts a rethinking of entrepreneurial opportunity as a historical construct.

### INTRODUCTION

The entrepreneurial revolution has been a catalyst for unprecedented change. Interest in this entrepreneurial revolution has focused on its coming (McCrae, 1976), its power (Timmons, 1998), its contemporary past (Stevenson, 2000) and its future (Isenberg, 2010)—all of which valorizes a culture of innovation and entrepreneurship in the United States, particularly in Silicon Valley—a hotbed for high-technology startups. Recently, Lippmann and Aldrich (in press) drew on historiographical concepts to examine the entrepreneurial culture of Silicon Valley (an entrepreneurially-oriented cohesive group within a specific region).

Shane (2008, p. 168) notes that “a very significant proportion all of the value generated by startups in the USA comes from [a] handful of VC backed firms.” With this in mind, our study focuses on *unicorns*, that is, private technology startups with a valuation of a billion dollars or more [1]. Until the early 2000s, the idea of a billion-dollar technology startup (pre-IPO) was unthinkable. Neither Google nor Amazon (or any company founded before 2000) had a billion-dollar valuation pre-IPO. At the present time (April 2016) there are 161 unicorns—95 of which have been founded in the U.S.—and they are collectively valued at \$567 billion. Thus, it appears that conditions since the start of the twenty-first century have been conducive to the contemporary rise in unicorns.

In response to recent calls for attention to history (Wadhvani & Jones, 2013) and context (Welter, 2011; Zahra & Wright, 2014) in entrepreneurship research, our goal is to analyze the historical context of rapidly growing ventures founded both before and after the dot.com bubble (2000-2001) to better understand how and why particular contexts (e.g., economic, institutional, cultural, situational, political or social) facilitate the emergence of new forms of entrepreneurship. This leads us to a three-part research question: Do manifestations of entrepreneurship reflect their historical times, that is, what changes when, why and how? Stated differently, do entrepreneurial opportunities have a history?

Ours is the first study that reconstructs the long-term historical pathways associated with next-gen technologies to examine the influence of three constellations of generations—age, birth

cohort and time period—on manifestations of entrepreneurship over time. Rather than focus on place (Lippmann & Aldrich, in press), our interest is *historical time*, that is, the relationship between the lives of entrepreneurs and the times they live in. Analysis of this intersection of biography and history moves the conversation beyond age-related demographics (Stangler, 2013) and birth cohorts (Howe & Strauss, 2007), and also side-steps determinism of the social, cultural, economic, technological, genetic, biological, geographic, environmental kind. Second, the opportunity has been associated with the future (e.g., Saravathy, 2001; Shane & Venkataraman, 2000) and with the present (Popp & Holt, 2013), but not with a past. Our generational approach shows that the entrepreneurial opportunity (as distinct from a profit opportunity) is a historical construct—it has a past, a present, and a future. It is not possible to grasp entrepreneurial opportunities in isolation from their historical contexts. Thus, the notion of an individual-opportunity nexus (Shane, 2003) obscures the dynamics underlying both the history of the opportunity and the biography of the entrepreneur.

In what follows, we first introduce Mannheim's (1952[1928]) problem of generations, and then use his notion of generational time at the intersection of biographical and historical time to determine whether the age of founders or the historical context of unicorns differ in meaningful ways from that of high-tech startups during a different time period. After presenting our findings, we conclude with a discussion of the implications of our results, and suggest potential avenues for future research.

### HYPOTHESES DEVELOPMENT

What is a generation, and why? Generations are often conceptualized as birth cohorts (e.g., Howe & Strauss, 1991, 2000; Twenge, 2006) with generation labels such as Boomers, Generation X, Millennials, and so forth. However, the appearance and succession of generations “are a function not of the meaningless facts of human biology, but of the patterns of social change – social differentiation, rates of transformation, conflict and crises” (Kettler & Loader, 2004, p. 163). As a result, the duration of a generation and the time period between them has little to do with age groups (birth cohorts), and instead depends on the socio-historical space in which individuals live.

Mannheim (1952) distinguishes between three concepts of social-historical space. First, *generational location* (a shared temporal location) refers to the generational status of the birth cohort. Individuals born in the same year are “‘similarly located,’ first of all, insofar as they are all exposed to the same phase of the collective process [...] the same events and data impinge upon a similarly ‘stratified’ consciousness” (p. 297). In other words, temporal location stratifies the generation according to opportunity structures and available resources. Second, “*generation as actuality*” (p. 303) refers to individuals with the same *generational location* who are aware that they are participating in a “common destiny” (a shared historical context) that reflect the *Zeitgeist* of a particular epoch. Thus, the actual generation is something more than temporal co-location—it is an actualization of the potential inherent in generation status. Third, *generational units* (a shared socio-cultural context) involve “a much more concrete bond than the actual generation as such. Youth experiencing the same concrete historical problems may be said to be part of the same actual generation; while those groups within the same actual generation which work up the material of their common experiences in different specific ways, constitute separate generation units” (Mannheim, 1952, p. 304). Members of a generational unit share a generational consciousness (a particular unified view). Consciousness of a “common destiny” stems from a self-reflective “*We-Sense* of a generation,” that is, “members of a generation do not simply share assumptions of a

background of experience. They also share a sense that the other members of the same generation share similar background assumptions. They do not only have something in common, they have also a (common) sense for (a kind of knowledge about) the fact that they have something in common” (Corsten, 1999, p. 258). This “*We-sense*” is produced by an interaction between the dynamics of historical events and biographical developments.

Following the approach Mannheim (1952) used to distinguish between political generations—with some modifications—we wish to distinguish different entrepreneurial generations, that is, determine whether a specific generation of ventures (started during the same time period) differs from those started at a different time period.

### METHOD

We focused on two analytically distinct eras—dot.com (1985-2000) and unicorn (2000-2015)—to conduct empirical analysis of the historical context. The nature of our inquiry—answering *when*, *why* and *how* questions about the role of context—requires a longitudinal research design using a multiple case study methodology (Eisenhardt, 1989; Eisenhardt & Gaebner, 2007; Yin, 1994). Companies from the dot.com era were identified from various books and websites that document the history of Silicon Valley. To be included in the list, the ICT companies started before 2000 had to be recognized as a pioneer or significant player at the time—either because of its impact, its fast growth or its spectacular (costly) failure. The dot.com era sample consists of 56 companies. For the unicorn era, we compiled a list of unicorns in the U.S. using the real time data published by CB Insights (2016). Using a theoretical sampling logic (Eisenhardt, 1989), we identified cases that represent strong contrasts in terms of industry, employees, revenues, and founders’ backgrounds. Twenty companies were selected for cross-case comparison—ten from each of the two eras. The ten companies (founding date in brackets) from the dot.com era are Qualcomm (1985), SanDisk (1988), Palm Computing (1992), Netscape (1994), Amazon (1994), eBay (1995), DoubleClick (1996), Netflix (1997), Google (1998), and Salesforce (1999). The ten companies from the unicorn era are Mu Sigma (2004), Razer (2005), Dropbox (2007), Airbnb (2008), Houzz (2009), Uber (2009), We Work (2010), Snapchat (2011), Slack Technologies (2013), and Jet.com (2014).

The first wave of data collection consisted of demographic information about the founders such as the date and country of birth, education, education, and previous startup experience. In addition, we collected data about the company such as founding date, location (U.S. state), industry, date it became a unicorn, as well as the date of its IPO or acquisition (where appropriate). We also developed tables to track key metrics (e.g., revenue, employees, funding, and growth rates). We gathered data from multiple sources including company websites, press releases, articles with interviews with the founders, biographies, extensive web searches, as well as books, analyst reports, and media articles about each firm, their competitors and the relevant industries. Using these data, we developed chronological case histories for each firm from pre-startup to the present, documenting major milestones and turning points in order to reconstruct phenomena (Yin, 2003). Cross-case comparisons were accompanied by a second wave of data collection, mostly related to external factors, such as trends, major events, and macro-environmental factors that determined the context during the two time periods of interest (15 years on either side of the dot.com bubble). Using these data, we developed timelines using Tableau software to organize major technological, economic, institutional, cultural, situational or social events from 1945 to 2015—a period of 60 years that span three birth cohorts. To analyze the data, we made several slices for periodization

using age, decades, eras, bubbles, revolutions, and the generation as historical units to negotiate the borders between the past, the present and the future (Lorenz & Berber, 2014).

## RESULTS

It is evident that something interesting is happening in entrepreneurship. Goodwin (2015) notes that “Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world’s largest accommodation provider, owns no real estate.” According to Collingwood (1994[1946], p. 177) “for the historian there is no difference between discovering what happened and discovering why it happened.”

### *The Historical Context*

Collaborative consumption practices (Botsman & Rogers, 2010; Belk, 2014) have changed economic, social, political and cultural realities worldwide. Some of the megatrends (Owyang, 2015) include rapid urbanization, demographic and social change, climate change and resource scarcity, shifts in global economic power, and technological breakthroughs. The disruptive innovations associated with next-gen technologies punctuate decade after decade (Lee, 2013) from the arrival of the semiconductor (1960s) to the birth of the personal computer (1970s), a new networked world (1980s), dawn of the modern Internet (1990s), new social networks (early 2000s), cloud computing (mid-2000s), artificial intelligence (2010s), and beyond. However, two revolutions stand out: the digital revolution instigated by World Wide Web (WWW) and the iPhone revolution in 2007. These two epochs underpin the two eras we are interested in—the dot.com era and the unicorn era, respectively. Thus, different manifestations of entrepreneurship can be linked to an entanglement of social, technological, cultural, economic, change or to demographic changes, such that one can detect distinct eras. The dot.com era is characterized by a focus on time to IPO, and most of the companies are public. In sharp contrast, the unicorn era is characterized by a focus on “time to market cap” (Ramadan, Lochhead & Peterson, 2014), that is, how long it takes a company to reach a seminal valuation or market capitalization milestone such as a billion-dollar valuation, and most of the companies remain private. For example, Uber became more valuable faster than any company from the dot.com era (e.g., Amazon, Google, or Salesforce). According to Evans (2016), the mobile phone (the first universal technology) represents a transition to a new ecosystem that has ten times the scale of the internet. The already ubiquitous connectivity is compounded by the “Nexus of Forces” (Gartner, 2015) due to the interdependencies of social media, cloud computing, the smartphone, and information (big data and the Internet of Things) that add mobile’s multiplier effects to the existing network effects. Apart from the many differences, there are two noticeable similarities between the two eras. First, the presence of “easy” venture capital money and structural changes in the venture capital industry. Second, the role of the media in creating a visible identity of the “the unicorn club,” thereby highlighting the internal divisions within an actual generation i.e. only a small number of entrepreneurs found unicorns (Lee, 2013).

### *The Biography of Entrepreneurs*

Many of the founders of unicorns are serial entrepreneurs, college dropouts, first or second generation immigrants, angel investors or venture capitalists, alumni of prestigious universities or of accelerators such as Y-Combinator—or combinations of these. Apart from the fact that the founding teams of companies in the unicorn era are bigger than those of the dot.com era, there

are no significant differences in the age of founders at start-up between the two groups (not in the twenty cases used for cross-comparison, or in the larger sample of companies).

On the one hand, new generational units of entrepreneurs are shaped by the permanent legacy of a previous generation of entrepreneurs. On the other hand, different generational units shape each other. For example, Amazon Web Services (AWS) is a major player in cloud computing. Thus, generational units of entrepreneur are both the cause and effect of entrepreneurial change. Further, an entrepreneurial generation is neither a predetermined given (Timmons, 1998), nor place-based (Lippmann & Aldrich, *in press*) or determined by age. Rather, each entrepreneurial generation is incipient—shaped (but not determined) by dynamic generation-building processes in the historical context.

### DISCUSSION & IMPLICATIONS

Thirty years ago, President Ronald Reagan's (1985) declared the start of the age of the entrepreneur. A lot has changed since then—most notably a shift in the role of technology from an industry to an enabler. This paradigm shift, associated with exponential technologies (Downes & Nunes, 2014), has spawned a new breed of exponential organizations (Ismail, Malone, & van Geest, 2014), thereby changing the face of the entrepreneurial revolution. On all accounts, it is a revolution within a revolution. Today, the age of unicorns (Griffith 2015) reflect the new “spirit of the age” (Mannheim, 1952, p. 341)—thereby overtaking the gazelles (Acs, Parsons, & Tracy, 2008).

Our findings suggest a number of implications. First, the richness and complexity of historiographic research requires different methods (Decker, Kipping, & Wadhvani, 2015) such as ethnomethodology to study history-in-action (Whittle & Wilson, 2015). Further, the concepts of history and biography “differ in number and scale: whereas .... ‘biography’ [refers] to individual experiences, ‘social change,’ ‘history,’ and ‘world’ make sense only for collectives” (Hardy & Waite, 1997, p. 2). As a result, methods will necessarily be multilevel and will require consideration of the layered complexity of chronological, biographical, generational, organizational, and historical times, and at different time scales.

Second, in terms of theory development, there is a preponderance of the X-as-a-service model among unicorns which is in line with the contemporary shift from a goods-dominant to a service-dominant logic (Vargo & Lusch, 2004) whereby value is co-created through resource integration by both the company and its stakeholders. This finding has implications for the received wisdom about the role of resources—either slack (George, 2005) or a lack thereof (Katila & Shane 2005)—for innovation. In addition, time emerges as a dimension of context (historical, real time, temporal), as an opportunity (on-demand services) and as a resource (speed), thereby changing perspectives on what makes a resource valuable (Schmidt & Keil, 2013) when resources are shared, rather than firm-idiosyncratic. This has implications for popular firm-based theories (Barney, 2001; Teece, 1997), opportunity-based theories (Alvarez & Barney, 2007), and demand-based theories (Adner & Zemsky, 2006; Priem, Li & Carr, 2012).

Third, entrepreneurship practice in each era centers on accelerated customer acquisition and rapid scaling—invariably at the expense of profitability for extended periods of time (e.g., Amazon)—in order to dominate their respective industries. Goodwin (2007) confirms this, stating that the real battle is for the customer interface. This results in ever-shorter cycles of creative disruption (Downes & Nunes, 2014) which in turn impacts the context for entrepreneurial innovation (Autio, Kenney, Mustar, Siegel, & Wright, 2014; Garud & Giuliani, 2014).

Fourth, our study prompts a rethinking of entrepreneurship education and the competencies students need to succeed in a world that is glocal, liquid, networked, virtual, and polycentric. There pedagogical value of unicorns and their founders is significant, not only for teaching entrepreneurship as a team endeavor rather than a solo effort, but also because students mistake high-tech companies for app-makers, not really they are full stack companies.

Fifth, policies continue to focus on the role of entrepreneurship in the U.S. economy (e.g., Decker, Haltiwanger, Jarming & Miranda, 2014). Meanwhile, the unicorns are creating entirely new ecosystems and spawning innumerable new startups—in the process disrupting and reforming regulations (Cable, 2016). In a less positive vein, the rise of a powerful entrepreneurial elite is creating two classes of founders: the top one-percent and the rest.

Given the exploratory nature of the study, there are several limitations. We cannot generalize using the attributes of the small number of cases examined in this study. Future research should examine whether the concept of generational units of entrepreneurs can be applied to a broader context, in other countries, as well as to other types of companies (not high-tech) started during the same time periods. Further, our proprietary database of cohorts of unicorn founders in combination with written cases of many of their companies opens up several possibilities for research such longitudinal study of the cohort itself, stratification of the founders using different metrics, a natural experiment determined by the dotcom bubble, as well as in-depth single case studies. The cohort of unicorns is also an ideal sample for examining the power law distributions (Andriani & McKelvey, 2009; Crawford, Aguinis, Lichtenstein, Davidsson, & McKelvey, 2015) associated with extreme events.

In closing, members of the (new) revolution of entrepreneurship (e.g., Google, Amazon, Facebook, Uber) introduce successive waves of epochal change that affect billions of people, in the process disclosing new worlds (Spinoza, Flores, & Dreyfuss, 1997). Their tacit participation in collective entrepreneurship fundamentally challenges what is thought possible, thereby provoking new ways of thinking: about organizing, about opportunities, about resources, and about what is to come next. Other formerly iconic companies have failed (e.g., Netscape) or are struggling (e.g., Yahoo!, Intel, IBM) to adapt to different eras. Yet, all of these companies are history-makers, and they will be remembered forever.

**CONTACT:** Minet Schindehutte; mschinde@syr.edu; (T) 315-443-3586; Whitman School of Management (532); 721 University Ave., Syracuse University, Syracuse, NY, 13244, United States.

**NOTES:**

(1) As a still nascent term, there has been considerable variation in the definition of unicorns since its inception (Lee, 2013). Thus, the number of unicorns at a given point in time differs based on the definition preferred by the source of information (e.g., *The Economist*, the *Wall Street Journal*, *Techcrunch*). Most of the popular press has recently started to quote CB Insights—an NSF-sponsored company—we used its data in the present study.