Mavericks and Diplomats: Bridging Commercial and Institutional Entrepreneurship for Society's Grand Challenges

Eric Volmar,[a,*] Kathleen M. Eisenhardt[a]

[a] Department of Management Science and Engineering, Stanford University, Stanford, California 94305
*Corresponding author
Contact: volmar@stanford.edu, https://orcid.org/0000-0002-2868-1341 (EV); kme@stanford.edu, https://orcid.org/0000-0002-4879-1679 (KME)

Abstract. Many of society's grand challenges, like access to education, improved public health, and building smart infrastructure, occur in established fields, often ones where noncommercial logics matter. Grounded in a theory-building study of two well-matched EdTech ventures in the nascent MOOC market in the U.S. higher education field, we unpack their strategy formation processes. These ventures faced the dual problem of forming a successful strategy in a nascent market while changing an established field. Our primary contribution is a theoretical framework that identifies two distinct yet effective processes. One (Maverick) is a *competitive, learning centric process*, whereas the other (Diplomat) is a *cooperative, diplomacy-centric* one. Although distinct, these processes unexpectedly share the same decision weaving (i.e., hybrid) problem-solving structure that fits complex, novel problems like strategy formation. Broadly, we contribute to institutional theory and institutional entrepreneurship by introducing the diplomacy lens, its tactics, and firm performance. We contribute to learning theory and entrepreneurship by identifying the unique features of learning in established markets, including the limits to rapid experimentation and the value of collaborative learning for changing established fields. We add to practice by emphasizing the difficulty of achieving both commercial success and societal impact. Overall, we bridge the gap between institutional and commercial entrepreneurship.

Introduction

Many of society's grand challenges, such as increasing access to education (Christensen et al. 2015), improving public health (Gao and McDonald 2022), and building smart infrastructure (Zuzul and Edmondson 2017), occur in established fields, often where the commercial logic of for-profit firms is not dominant. The nascent markets that emerge in these fields (our focus) can offer attractive opportunities for ventures to address critical societal issues. Yet it can also be difficult for ventures to effectively form strategy in these settings. That is, these settings pose the dual problem of both forming a successful strategy in a nascent market while changing an established field.

Several research streams offer insights into how ventures might effectively form strategy in the nascent markets that emerge within established fields. By *strategy formation*, we mean the process by which firms attempt to build a unique set of activities that creates competitive advantage and commercial success (Porter 1996, Rivkin 2000, Ott et al. 2017). One stream centers on *learning theory and entrepreneurship* in nascent markets. This work often examines one or two learning processes like trial-and-error (Rindova and Kotha 2001), bricolage (Baker and Nelson 2005), and experimentation (Andries et al. 2013) by which ventures attempt to resolve the uncertainties of nascent markets. Recent work further emphasizes a portfolio of learning processes, particularly rapid experimentation and pivots (Contigiani and Levinthal 2019, Camuffo et al. 2020, McDonald and Eisenhardt 2020), in order to find product market-fit, design a viable business model, and broadly form a successful strategy. Yet although valuable, it is unclear how these learning processes operate in established fields like education, national security, and healthcare, where the pace is often slow, noncommercial norms and behaviors may be relevant, and well-known venture mantras like "move fast, break things" may violate field values like safety, privacy, and reliability.

A second stream centers on *institutional theory* and *institutional entrepreneurship*. Following others (Battilana et al. 2009), we define *institutional entrepreneurship* as how actors attempt to change an organizational field (or simply field), such as healthcare, energy, and education. In the context of ventures, early work has

examined how ventures attempt to change a field by enhancing their legitimacy, such as with symbols, stories, and high-status affiliations (Hargadon and Douglas 2001, Santos and Eisenhardt 2009, Navis and Glynn 2010). Later work has focused on how ventures attempt to change a field by using tactics to influence policymakers, particularly regulators (Gurses and Ozcan 2015, Ansari et al. 2016, Lee et al. 2018, Gao and McDonald 2022). Yet although legitimacy and favorable public policy are likely helpful, it is unclear how ventures resolve the many nascent market uncertainties around products, customers, and technology and so form successful strategies.

Together, these streams indicate that ventures entering nascent markets within established fields should use (1) learning processes, particularly rapid experimentation and occasional pivots, to resolve the uncertainties of nascent markets and (2) field-changing tactics to enhance legitimacy and influence public policy in established fields. Yet although likely helpful, it is unclear how learning might be different in established fields, where the pace is often slow, noncommercial norms and behaviors may matter, and well-known venture mantras for learning like "fail fast" may violate field values like safety and reliability. Although legitimacy and favorable public policy are likely useful, they are unlikely to resolve key nascent market uncertainties, such as around products. Finally, because these streams rarely intersect (Battilana et al. 2009, Tolbert et al. 2011), they offer limited collective insight into how ventures resolve the dual problem of forming a successful strategy in a nascent market while changing an established field. Thus, we know relatively little about how ventures succeed in some of society's most critical settings. We address this gap by asking: *How do ventures effectively form strategy in nascent markets that emerge in established fields?*

Given limited theoretical understanding and empirical evidence, we employ a multi-case theory-building method (Eisenhardt and Graebner 2007). The setting is the nascent massive open online course (MOOC) market that emerged in 2012 in the U.S. higher education field. We closely track the two ventures that began this market from their founding. By *venture*, we mean a new for-profit firm funded by professional investors like venture capitalists (VCs). The ventures (Maverick, Diplomat) are closely matched in terms of founding date, resources, technologies, and leadership teams. Both achieved successful strategies and some positive societal impact but used different strategy formation processes.

We contribute at the intersection of organization theory, strategy, and entrepreneurship. Although we cannot rule out other effective processes, our core contribution is a theoretical framework that identifies two distinct processes for effectively forming strategy in nascent markets within established fields. The first

process (Maverick) is a *competitive, learning-centric* path that begins with a vision of being a substitute for incumbents and initially emphasizes learning about the nascent market. The second process (Diplomat) is a *cooperative, diplomacy-centric* path that begins with a vision of being a complementor to incumbents and initially emphasizes gaining legitimacy in the field. Thus, these processes diverge early on with (a) different engagement with the field and nascent market, (b) different ways to shift direction, and (c) distinct approaches to building activities. Yet despite these differences, both processes address the dual problem of forming a successful strategy in a nascent market while changing an established field. Furthermore, these processes unexpectedly share an underlying decision weaving problem-solving structure that fits novel, complex problems like strategy formation.

Broadly, we contribute to *institutional theory and institutional entrepreneurship* by introducing the diplomacy lens and the relevance of firm performance. The diplomacy lens is especially valuable because ventures like nations are standalone entities that pursue their own aims in an interconnected world where other actors are also pursuing their own interests (Freeman 1997, Nye 2008). This lens usefully expands field-changing tactics beyond enhancing legitimacy and influencing public policy to include the diplomatic gambits of nations (e.g., envoys, councils, coalitions, cocreations). We also contribute to *learning theory and entrepreneurship* by identifying the unique features of learning in established fields. These fields matter because they are both ubiquitous and often relevant for society's grand challenges. We identify limits to rapid experimentation and the relevance of collaborative learning with willing incumbents for changing established fields. Finally, we add to *practice* by emphasizing the difficulty of achieving both commercial success and societal impact. Thus, we temper entrepreneurial enthusiasm with a nuanced view of what ventures that aim for both can actually achieve. Overall, we bridge the gap between commercial and institutional entrepreneurship.

Theoretical Background

Our research question asks how ventures effectively form strategy in nascent markets that emerge in established fields. Two research streams are especially relevant. One stream focuses on *learning theory and entrepreneurship* in nascent markets. By a *nascent market*, we mean a novel economic exchange characterized by uncertainties like incomplete products, uncertain technologies, unclear demand, and unstable market structure (Santos and Eisenhardt 2009, Navis and Glynn 2010). Early work often examines one or two learning processes such as trial-and-error (Bingham and Eisenhardt 2011), experimentation (Andries et al. 2013,

Hannah and Eisenhardt 2018), and bricolage (Baker and Nelson 2005). For example, Rindova and Kotha (2001) show how Yahoo! entrepreneurs used trial-and-error learning to "continuously morph" strategy. Extending this work, McDonald and Eisenhardt (2020) noted the effectiveness of a repertoire of learning processes like experimentation to test assumptions, vicarious learning from others, and passive learning by watching events. Collectively, this work finds that learning processes can reduce the uncertainties of nascent markets and so help ventures to effectively form strategy.

More recent studies indicate renewed interest in rapid experimentation, including large-scale economic experiments (Pillai et al. 2020), parallel and serial experimentation (Bremner and Eisenhardt 2022), and incremental A/B testing (Koning et al. 2022, Tidhar et al. 2024). Noteworthy are studies with rigorous causal designs. For example, Camuffo et al. (2020) found that entrepreneurs who experiment by testing hypotheses are likely to either be more successful or wisely exit quickly. Closely related to experimentation is pivoting (McDonald and Gao 2019, Eesley and Wu 2020). Pivots are substantial changes in strategic direction that usually occur in response to learned insights (Kirtley and O'Mahony 2023). The combination of rapid experimentation and occasional pivots is at the heart of the popular lean startup method (Blank 2013, Contigiani and Levinthal 2019).

Overall, this stream points to the value of multiple learning processes, occasional pivots, and rapid experimentation to resolve uncertainties and so effectively form strategy in nascent markets. Yet although valuable, this stream leaves open how learning processes operate in established fields. For example, these fields often have a slow pace that may be inconsistent with rapid experimentation. They are often resistant to change, potentially making it difficult to pivot. Field actors may regard some attempts to learn as inappropriate if they violate the field's norms like collective governance or values like privacy. Well-known venture mantras for learning like "move fast, break things" may be inappropriate in established fields like energy, national security, and healthcare, where values like reliability and safety matter.

A second stream focuses on *institutional theory and institutional entrepreneurship*.[1] Per above, institutional entrepreneurship focuses on how actors attempt to change a focal organizational field (Battilana et al. 2009). Following others (Scott 2008, Zietsma et al. 2017), we define an *organizational field* (or simply field) as a collection of interdependent organizations that participate in a social and economic order with shared meanings and logics within a sphere of activity like education, transportation, and energy. The field is a core concept within institutional theory and includes informal and socio-cognitive forces as well as formal and legal ones (Scott 2008). Thus, it is broader than the concept of sector in strategy and better fits our research question and setting. By *institutional logic* (or simply logic), we mean the set of values, norms, and behaviors that are deeply embedded in how individuals interpret reality, decide what is appropriate, and act in a given field (Thornton et al. 2012). Specifically, we focus on *established fields*, that is, fields with relatively stable membership, logics, and status hierarchy (Zietsma et al. 2017). As argued above, many of society's grand challenges occur in established fields, especially ones like healthcare and education, where the commercial logic is not dominant.[2]

In the context of ventures, early work in institutional entrepreneurship examines how ventures attempt to change a field by enhancing legitimacy using symbols, stories, and high-status affiliations (see, e.g., Hargadon and Douglas 2001, Navis and Glynn 2010, Karunakaran 2022). For example, Santos and Eisenhardt (2009) described how a very successful e-commerce venture signaled legitimacy in the established retail field with familiar symbols like shopping cart, checkout, and wish list. Zuzul and Edmondson (2017) discussed how a venture used a compelling founding story to attract media coverage that explained and legitimated the venture to skeptics in the established urban planning field.

More recent studies have explored other field-changing (often termed nonmarket) tactics by which ventures attempt to influence policymakers, particularly regulators. One tactic is framing (Hiatt and Park 2013, York et al. 2016). For example, Yue and Wang (2024) described how ventures in the nascent civilian drone market used a public interest frame to influence regulators within the established transportation field. Framing can also counter resistant incumbents. For example, Gurses and Ozcan (2015) described how ventures framed cable TV as a social good for the rural United States and so influenced a key regulator while side-stepping incumbent objections. Another tactic is collective action like forming industry associations to influence regulators (Lee et al. 2018). Ventures can also cocreate regulations to influence a field to their advantage by providing proprietary knowledge that regulators lack (Gao and McDonald 2022).

Overall, this stream notes the value of enhancing legitimacy and influencing policymakers for ventures to change fields to their advantage. Although helpful, this stream leaves open whether there are other useful field-changing tactics beyond influencing single actors like regulators. This stream also neglects how ventures might resolve the many uncertainties of nascent markets around products, customers, and technology. Finally, successful field-changing tactics can give ventures a false sense of achievement that distracts from forming a successful commercial strategy (Zuzul and Edmondson 2017).

Together, these two streams indicate that ventures in nascent markets within established fields should use (1) learning processes like rapid experimentation to reduce the uncertainties of nascent markets and (2) field-changing tactics to gain legitimacy and favorable public policy. But it is unclear how learning operates in established fields where the pace is often slow, non-commercial norms and behaviors may matter, and well-known venture mantras for learning like "fail fast" may violate field values like safety. Likewise, legitimacy and favorable public policy are unlikely to resolve the key uncertainties of nascent markets around products, customers, and technology. Finally, because these streams rarely connect (Tolbert et al. 2011, Ansari et al. 2016), they give limited collective insight into the dual problem of forming a successful strategy in a nascent market while changing an established field. We address this gap.

Methods

Given limited theory and evidence related to our research question, we use multi-case theory building (Eisenhardt 1989). This method also fits with process research such as ours (Langley 1999) and causal research questions such as we ask (Eisenhardt 2021). Like other theory building methods (e.g., formal models, verbal theory), multi-case theory building can develop (but not test) causal theory. It is especially useful for building causal theory because (1) case selection can offer some "control" over alternative explanations, (2) longitudinal data capture events over time, thus indicating temporal order and possible causal order, and (3) theoretical arguments linking constructs lessen random correlational associations in the emergent theory. Multi-case theory building has been used in numerous studies with causal research questions (see, e.g., Navis and Glynn 2010, Ott and Eisenhardt 2020, Zuzul and Tripsas 2020).

Research Setting

We began in 2016 with an interest in how ventures succeed in nascent markets that emerge within established fields, particularly those like healthcare, national security, and education, where some of society's grand challenges occur and where commercial logic does not dominate. We chose the nascent MOOC (massive online open course) market that emerged in the U.S. higher education field in 2012.

The MOOC market was triggered by the confluence of novel technologies like video distribution at scale and cloud computing (Ng and Widom 2014). This market is appropriate for our research for several reasons. First, the MOOC market is nascent during our study period, thus fitting our research question. Its entrants sought to democratize university-level education by offering affordable or even free courses taught by elite faculty to anyone anywhere (Pappano 2012). MOOCs were revolutionary because of their extreme technical scalability and global availability (Ng and Widom 2014). Many believed that MOOCs had disruptive potential (see, e.g., Christensen et al. 2015). One major media outlet exclaimed, "*Welcome to the college education revolution. Big breakthroughs happen when what is suddenly possible meets what is desperately necessary.*" A second enthused, "*Revolution hits the universities.*" Consistent with a nascent market (see, e.g., Santos and Eisenhardt 2009, Navis and Glynn 2010), it was highly uncertain what the MOOC product actually was, who would want it, and who would pay.

Second, the MOOC market emerged within an established field, thus also fitting our research question. U.S. higher education is an established field that has existed for well over 100 years (Schofer et al. 2007, Scott 2008). We define the field as comprised of the organizations that educate students in academic disciplines at the postsecondary level and offer degrees, and supporting organizations. Central actors are universities, whereas supporting organizations include testing services and accrediting bodies. Although some universities also ascribe to a religious (e.g., Notre Dame) or state (e.g., University of Michigan) logic, the primary logic within the field is a professional academic logic, not a commercial one (Thornton et al. 2012, Scott and Biag 2016, Musselin 2021). This logic rests on the personal expertise of the faculty who engage in the research and teaching crafts. Consistent with a professional logic (Pahnke et al. 2015), status within the profession is a primary goal for many. Consistent with an established field (Zietsma et al. 2017), there are many shared norms and practices like the academic calendar, professorial ranks, tenure, four-year degrees, faculty senate, and letter grading as well as shared values like collective governance (Frank and Meyer 2020). Also consistent with an established field (Zietsma et al. 2017), an almost unchanging status hierarchy has existed among universities for decades (Christensen et al. 2015).

Third, the nascent MOOC market has received extensive media coverage since its beginning, thus creating a rich trove of real-time data during our study.

Matched-Pair Case Design

We use a matched-pair case design. This design consists of two cases that (1) share many similar features that mitigate or "control" for some alternative explanations and (2) have a major difference of theoretical interest (Bechky and O'Mahony 2015). This design has been used in many studies, including exemplar venture studies (see, e.g., Battilana and Dorado 2010, Navis and Glynn 2010, McDonald and Gao 2019). Compared with single cases, matched pairs offer the better grounding (two cases, not one), more precise conceptualization

Table 1. Sample Ventures

	Maverick	Diplomat
Founding conditions		
Location	United States, metro area	United States, metro area
Origin	A cofounder offered a university course online to anyone for free (attracted more than 100,000 learners)	Each cofounder offered a university course online to anyone for free (attracted more than 100,000 people)
Founding date	Early 2012	Early 2012
Aim	Democratize education by making elite university courses accessible to anyone anywhere	Democratize education by making elite university courses accessible to anyone anywhere
First-year funding	About $20 million in venture capital from premier VCs and angels	About $20 million in venture capital from premier VCs and angels
Founding team		
Cofounder	Prominent professor at elite university	Prominent professor at elite university
Age	Early 40 s	Mid-30 s
Industry experience	Cofounder of a corporate research laboratory	Cofounder of a corporate research laboratory
Venture experience	None	None
Highest degree	PhD	PhD
Cofounder	University researcher	Prominent professor at elite university
Age	Late 20 s	Early 40 s
Industry experience	Scientific research organization	None
Venture experience	Engineer in 2 technology ventures	None
Highest degree	PhD	PhD
Cofounder	University researcher	
Age	Late 20 s	
Industry experience	None	
Venture experience	None	
Highest degree	BS	

because of comparison, and less chance of overdetermined theory (Eisenhardt 2021).

Compared with more cases, matched pairs enable richer presentation of each case and sometimes better "control" of alternative explanations but also more potential for overdetermined theory. Similar to a "talking pig" single case (Siggelkow 2007), matched pairs are especially powerful when they are a *unique comparison*, that is, relatively rare (e.g., only two satellite radio stations (Navis and Glynn 2010)), with particularly high similarity on many features and a specific theoretically important difference.

Our sample is the two ventures (i.e., new for-profit firms with professional investors) that began the nascent MOOC market in early 2012. These ventures were part of a larger study of the MOOC market by the first author. Early on, he realized that these ventures were a unique comparison, that is, unusually similar ventures that began the nascent market, and formed very different yet successful strategies. As is acceptable in multi-case theory building (Glaser and Strauss 1967, Eisenhardt 2021), we shifted our research question to study effective strategy formation. Although we could have added ventures founded later or in related markets, they would detract from the isolation of the focal theoretical difference that we achieved with this pairing of unusually well-matched ventures.

Our sample is attractive for several reasons. First, the two ventures offer a *unique comparison* per above. On the one hand, they had many similarities (Table 1). Both sought to use MOOC technologies to democratize university education by offering a platform for inexpensive or even free courses taught by elite faculty to anyone anywhere. Both raised similar initial funding of about $20 million from top VC and angel investors. Their founding teams were similar in size, age, and background as prominent faculty and researchers at elite universities. Both had little or no startup or even industry experience. Neither team began with a strategy, although both recognized the need to form one and ultimately make money. On the other hand, these ventures had a major, theoretically relevant difference, that is, they formed very different yet successful strategies. Our research aims to uncover their strategy formation processes.

Second, the two ventures are the *complete population* of the founding ventures. A nonprofit organization began late in 2012. We included it in our analysis when relevant, but not in our sample, because it is a nonprofit and not a commercial firm. Another venture diversified into the MOOC market in 2013 but quickly left. Others in related markets never entered. (See Online Appendix for details).

Data Collection

We use several data sources: (1) archival data like media articles, venture blogs, and employee reviews, (2) interviews with founders, executives, and managers in each venture, (3) interviews with other informed sources like experts, partners, and investors, and (4) informal emails and calls to clarify details. This variety provides robust triangulation from multiple data sources (Table 2).

We began data collection in 2016 by gathering archival data from 2012. We used Factiva to collect media (e.g., articles, interviews) about the ventures and the market from major outlets (e.g., *New York Times*, *Wall Street Journal*) and specialty sources (e.g., *Chronicle of Higher Education*, *Tech Crunch*). We also collected venture blog posts, industry reports, course data (Class Central), employee reviews (Glassdoor), and a teaching case (Diplomat). Because many news articles simply mention the venture, we distinguish these articles from focal ones that mention the venture at least twice. Focal articles typically cover key events like product launches and discuss venture actions, strategy, and history. We also collected blogs from venture executives. These blogs often cover major events like product launches.

Our primary data source is 126 interviews (75 first-hand, 51 online) with internal and external informants (Table 2). We conducted first-hand interviews beginning in 2017. We added two waves (2018, 2019) to fill data gaps. Internal informants included founders, CEOs, executive team members, and managers across functions (e.g., product, partnerships) and across time. External informants included partners, advisors, and experts. We interviewed some informants who were closely involved in strategy formation multiple times (e.g., Maverick's CMO, Diplomat's CEO).

We used a semi-structured interview guide with two sections. First, we asked overview questions about the informant (e.g., role, background) and the venture (e.g., objectives). Second, we asked informants to provide a chronological account of the venture's history since founding (or prior interview). For external informants, we adjusted the interview to fit their knowledge. We used interview techniques, like nondirective questioning and courtroom-style emphasis on facts and actions, to gather open-ended narratives and limit response bias (Eisenhardt and Graebner 2007). We used a chronological format, because it improves informant recall, rather than purely open-ended questions that are often more difficult for informants to answer accurately (Langley and Meziani 2020). To further improve accuracy, we avoided directive questions (e.g., Did you experiment?) and speculative ones (e.g., Why did the venture succeed?). The interviews were 30 to 90 minutes, recorded and transcribed.

We also gathered 51 online interviews (e.g., YouTube, Startup School) with founders and executives. Given high media interest in MOOCs, these interviews began in 2012 as our ventures began and continued throughout our study. They typically covered founding actions, major events like executive hires, and recent actions. These online interviews were especially valuable for providing real-time data on the ventures to corroborate and complement our first-hand interviews. Together, these triangulated data from multiple informants, time periods, and types of interviews provided a richer, more comprehensive, and more reliable view of the strategy formation process than any single data source.

We took several steps to improve data validity. First, we collected both real-time (mitigate bias) and retrospective (efficient data collection) interview data. Because our first-hand interviews begin in 2017, the online interviews and other archival data were particularly useful for providing real-time accounts to corroborate and complement our first-hand interviews. Second, we used semi-structured interviews for our first-hand interviews (see above) that emphasized (1) chronological accounts of actions and events and (2) nondirective interview techniques to improve accuracy and limit response biases (Huber and Power 1985). Third, we interviewed a variety of internal and external informants across functions (e.g., partnerships, marketing), levels (e.g., founders, executive teams, managers), perspectives (e.g., experts, partners, investors), and time (e.g., founding, later years). This variety provided a more complete, accurate, and corroborated account than any single source. Fourth, we promised anonymity to encourage candid information. Together, these data provided a holistic, triangulated account of the venture from multiple informant perspectives and data sources. They are a strength of our study.

Although the MOOC market and our ventures continued, we concluded our study at a natural endpoint when each venture had effectively formed a strategy, that is, the end of 2015 (see measures below). We continued data collection through 2017, with more limited collection through 2020.

Data Analysis

We began data analysis by creating case histories (Eisenhardt and Graebner 2007). We integrated interviews, media articles, blogs, employee reviews, a teaching case, and other archival data to create detailed narratives of each venture's history. The archival data were particularly useful in establishing an initial timeline and later in corroborating key events, actions, activities, and decisions described by informants. The first-hand interviews were especially useful to flesh out timelines with rich insights unavailable in archival data (e.g., decisions considered but not taken). Because we began our first-hand interviews in 2017, we took care to ensure that the data from archival sources and the first-hand interviews converged. The first-hand interviews

Table 2. Overview of Data Sources

Source	Primary purposes	Maverick		Diplomat	
		Count	Total (first-hand)	Count	Total (first-hand)
Internal interviews	Firm history, including key events and actions, partnerships, decisions, experiments, decision making, mistakes, and miscellaneous other info about venture	43	4 (2) investors and board members, 17 (2) cofounders, CEO, 16 (8) executives, 6 (5) managers	49	3 (3) investors and board members, 16 (2) cofounders, CEO, 18 (14) executives, 12 (12) managers
External interviews	Same as internal interviews	8	3 (2) Advisors, 5 (3) Partners	15	2 (2) Advisors, 13 (9) Partners
Media articles Focal	Key events and actions, product launches, executive changes, funding rounds, performance, decisions, and other miscellaneous information related to venture	71	*New York Times, Wall Street Journal, Wired, Chronicle of Higher Education, Tech Crunch,* and similar media articles related to focal venture. 11 (11) MOOC market experts – relevant to both ventures	61	Similar media articles related to focal venture
Relevant venture blogs	Key events and actions, new products, executive changes, partnership announcements, performance, and miscellaneous information related to venture	36	Relevant ones from more than 1,000 (selected by titles and keyword searches)	24	Relevant ones from more than 700 (selected by titles and keyword searches)
Employee reviews	Comments on topics like organizational strengths and weaknesses, leadership style, and compensation	140	Glassdoor	133	Glassdoor
Class Central	Detailed record of partners and courses for each venture since founding.				
Teaching case	Diplomat only. Venture history, including key events and actions of focal venture. Overviews of the MOOC market and the U.S. higher education field.				

either corroborated real-time archival sources or added complementary insights such as details about specific actions (e.g., specific experiments). We also corroborated accounts among first-hand informants (e.g., partnership descriptions by executives compared with those of partners). There were very few inconsistencies. When details were unclear or seemed inconsistent, we returned to the data and/or gathered more data in follow-up interviews and emails. This labor-intensive process led to a rich, comprehensive history supported by multiple data sources. Each case is about 120 single-spaced pages, including quotes and tables. One author wrote the cases, whereas the other reviewed the data independently. We then resolved the few differences by returning to the data and/or with follow-up emails and phone calls.

We analyzed each case broadly and relative to our research question. Within each case, we developed initial constructs and themes (Eisenhardt and Graebner 2007). After analyzing each case alone, we used cross-case analysis using typical analytic techniques such as comparing the cases for similarities and differences (Gehman et al. 2018). We iterated between the emergent theory and data to sharpen constructs and theoretical logic and to ground them more fully in the data (Glaser and Strauss 1967).

Because two cases can lead to overdetermined theory, we used mitigating tactics. First, and like machine learning (ML), which has similar overfitting issues, we emphasized (1) simple theory that includes only the most important, well-grounded constructs, that is, regularization in ML to limit overfitting (Tidhar and Eisenhardt 2020, Choudhury et al. 2021). Second, we used theoretical arguments linking constructs to (2) limit random correlational associations in our theory and (3) refine the abstraction levels of the constructs (Eisenhardt 2021, Grodal et al. 2021). Although these tactics lessen the chance of overdetermined theory, they do not eliminate it.

As the theory emerged, we brought in relevant literature like diplomacy from political science to refine the theory (Gehman et al. 2018). We continued this iterative, creative process until reaching strong correspondence among data, constructs, and theory (Glaser and Strauss 1967, Eisenhardt 1989).

Our research question asks: *How do ventures effectively form strategy in nascent markets that emerge in established fields?* Consistent with others and our earlier definition of strategy formation (Porter 1996, Rivkin 2000, Ott et al. 2017), we define *strategy* as the unique set of activities, including key elements (i.e., specific customers, products, revenue sources, business model, partners, and supporting activities) by which a firm attempts to create advantage and commercial success. We assessed effective strategy formation using measures that highly converged for each venture (Table 3). First, we measured effective strategy formation by whether the process led to a complete strategy, that is, consistent with our strategy definition, one with all key elements of a strategy (i.e., specific customers, products, revenue sources, business model, partners, and supporting activities) present.[3] Both ventures achieved a complete strategy at the end of 2015, creating a natural endpoint for our study, per above. Second, we measured effective strategy formation by whether the process led to a successful strategy, using *quantitative* indicators of commercial success relevant to for-profit firms like ours (e.g., revenue, market share) at the end of 2015 and poststudy and *qualitative* assessments from informants and media. Third, we bolstered these measures with common indirect indicators of successful strategy in ventures: (1) Series D funding round (typically available only to ventures with potentially successful strategies in place) and (2) $1 billion "unicorn" valuation (signals whether investors believe that the venture has or will have a successful strategy). Per above, these measures converge for each venture.

Both Diplomat and Maverick effectively formed strategies (Table 3). Diplomat went from about $3 million in revenue in 2014 to $60 million two years later to $300 million in 2020. It is consistently the market leader. A media outlet touted Diplomat as "*the most stable and secure EdTech.*" Another noted, "*Diplomat has the advantage of working with the most highly regarded brands in higher ed.*" Although more modest than its initial aim of democratizing education, about 90% of its millions of learners take more than a thousand courses for free. Maverick grew from about $3 million in 2014 to $30 million two years later to $90 million in 2018. The media enthused, "*Maverick is by far the leader in terms of execution, they seem to have it together.*" It is also widely seen as having the most innovative strategy. Although more modest than its initial aim of democratizing education, Maverick made upskilling and advanced tech careers available to many by lowering cost and access barriers. An expert declared, "*Maverick just nailed it ... Careers are aspirational and everybody tries to do that but Maverick is way, way ahead.*" We turn to the theoretical framework that describes their different, yet effective, strategy formation processes.

Emergent Theoretical Framework
Vision of the Field and Broad Engagement (2012–2013)

Maverick and Diplomat began in early 2012 after their founders' online courses (MOOCs) each attracted more than 100,000 students. Their successes triggered what the media termed "*MOOC mania.*" One media outlet exclaimed, "*Welcome to the college education revolution.*" Another grandly predicted, "*Nothing has more potential to lift more people out of poverty ... .Nothing has more*

Table 3. Effective Strategy Formation

| Effective strategy formation	Maverick	Diplomat
Complete strategy *(End of 2015 when study concluded)*	Learners: Technical professionals who want a better job. Products: Courses that comprise a "techno-degree" for advanced tech jobs. Partners: Experts from corporate partners design and teach courses. Corporate partners and others hire graduates. Business model: Platform that connects courses and techno-degrees w/learners and platform that connects employers with learners. Revenue model: Learner pays subscription fee; some have corporate scholarships	Learners: Wide variety of traditional students, professionals looking to upgrade skills, and lifelong learners. Products: Wide variety of university courses plus focused credentials and degrees. Partners: Faculty of university partners design and teach courses. Business model: Platform that connects courses, credentials, and degrees with learners. Revenue model: Freemium courses, paid credentials, and paid degrees. Revenue split with universities. Otherwise, free.
Successful strategy		
Revenue 2014	About $3 million	About $3 million
2015	$20 million	$10 million
2016	$30 million	$60 million
2018	$90 million	$140 million
2020	Revenue growth	$300 million
Market share profitability (positive unit economics)	Consistent no. 2/3 in U.S., top 5 global Yes (2019)	Consistent no. 1 in U.S. and global Yes (2019)
Successful strategy Indirect indicators		
Series D	Yes (2015)	Yes (early 2017)
Unicorn	Yes (2019)	Yes (early 2017)
Employees 2015,2016	130, 220	220, 300
Partners 2015,2016	19, 20 corporations & 1 university	135,150 universities (& corporations 2016)
Learners 2015,2016	4, 5M	17, 23M
Courses 2015, 2016	123, 170	1545, 2303
Successful strategy representative quotes	*Maverick is by far the leader in terms of execution; they seem to have it together … They're solving an actual employee problem.* (Media) *Maverick just nailed it … Careers are aspirational, and everybody tries to do that but Maverick is way, way ahead.* (Market expert) *We're the only ones that can say we work with partners like [top tech firms] to create cutting-edge content that allows you to get a job …. Nobody says that!* (Executive)	*Diplomat is the most stable and secure EdTech.* (Media) *Diplomat has the advantage of working with most highly regarded brands in higher ed.* (Media) *We navigated the tension between the startup world and the university world relatively well … We were able to convince the universities that we were not greedy businesspeople out to put them out of business, but really part of who they were.* (Board member)

potential to unlock a billion more brains to solve the world's biggest problems." Another simply proclaimed 2012 as *"The Year of the MOOC."* Overall, it is hard to overstate the extraordinary hype about MOOCs in 2012.

Consistent with the exceptional promise of MOOCs, both Maverick and Diplomat sought to democratize higher education by offering affordable or even free courses taught by elite faculty using MOOC technologies to anyone anywhere. Both received similar VC funding, although neither was under immediate pressure to be profitable. Yet despite many similarities (Table 1), they followed different yet effective strategy formation processes. One is a competitive, learning-centric process (Maverick), and the other is a cooperative, diplomacy-centric process (Diplomat) (Figure 1).

Maverick: Competitive Vision and Broad Learning. In learning-centric processes like lean start up (Blank 2013), entrepreneurs effectively form strategy by testing assumptions about products and markets. The focus is on rapid experimentation as well as pivots when product, market, or other assumptions appear incorrect (Contigiani and Levinthal 2019). Our data reveal that Maverick followed a similar process. It begins with (1) a competitive vision of the field leading to (2) broad learning, including both local and distant learning (Figure 1 and Table 4).

Maverick was founded by a prominent professor and two junior researchers at an elite university. They began with a competitive vision of Maverick as a substitute and ultimately replacement for traditional

Figure 1. Process Model of Effective Strategy Formation in Nascent Markets Within Established Fields
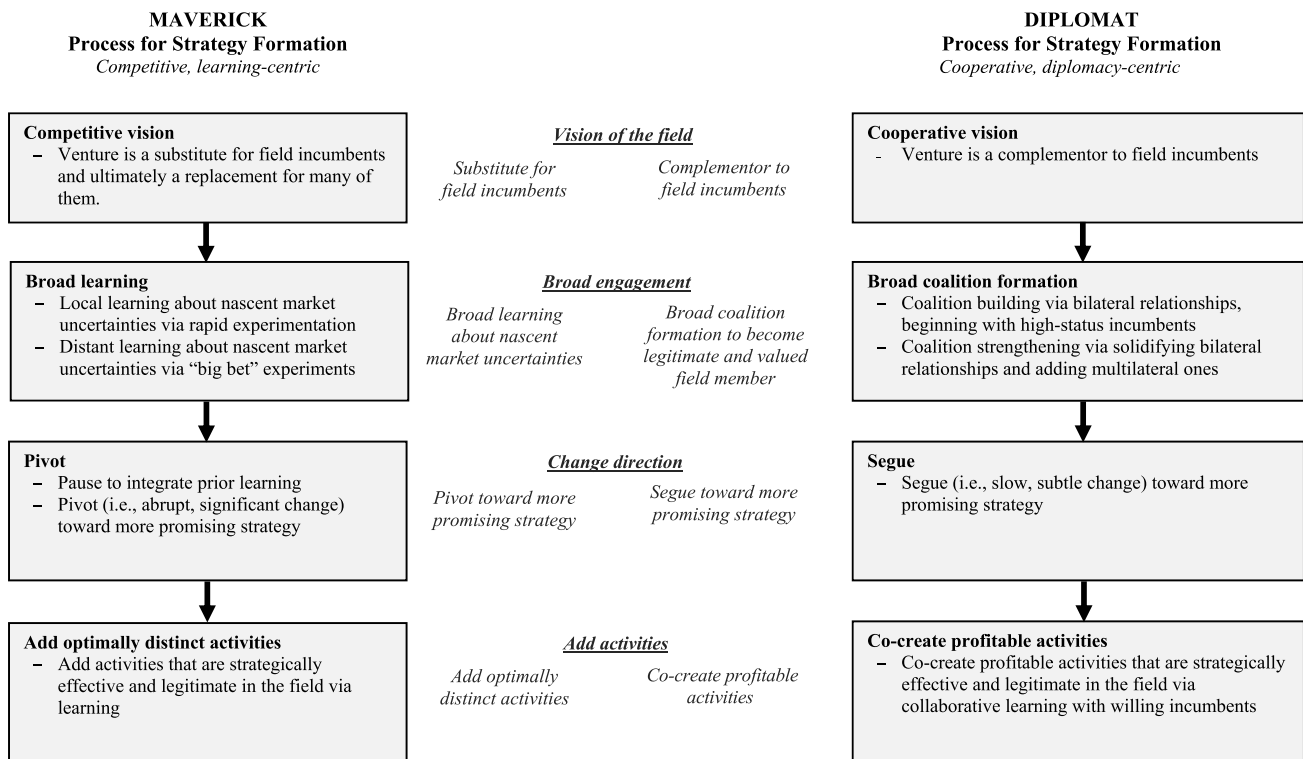
universities. The lead founder and CEO explained the vision: "*We'll be just like any other university, but a university for the 21st century,*" and ambitiously claimed, "*In 50 years, there will be only 10 institutions in the world delivering higher education and Maverick has a shot at being one of them.*" An investor quipped, "*I don't think they had a business model other than disrupt Harvard.*"

Given this competitive vision, Maverick's founders saw little reason to engage with universities. Instead, they engaged in broad learning about nascent MOOC market uncertainties, beginning with local learning. By *local learning*, we mean acting to add incremental knowledge near what is already known, often by small experiments. Specifically, Maverick often used rapid experimentation on course content that began right after founding. The team hypothesized that if a specialized course could attract over 100,000 people, general courses would attract even more. For this first experiment, Maverick hired a popular professor from another university to teach introductory computer science. A cofounder noted,

> In this class we go from no programming skills whatsoever … And in seven weeks' time, you can build an application … We hope to get 500,000 students enrolled. It's an ambitious number, but why not?

Maverick launched the course in two weeks, and feedback was quick. The new course attracted only 90,000 students. The second course experiment quickly followed a month later. It attracted only 5,000, and its dropout rate was more than 90%. The CEO lamented, "*[Student adoption] by any corporate metric you might consider was not going up but going down.*" A cofounder ruefully said, "*So while we were being celebrated as the big disruptor, the heroes who finally brought higher education into the 21st Century, the numbers didn't work!*"

The team pored over written student comments and spoke with students to learn what went wrong. An investor noted, "*Instead of going, "Screw 'em, what do they know? They're only my customers," Maverick dealt with the ugly fact.*" A cofounder described,

> I spent hours every day chatting with students, having phone calls. We call the people who drop out, and find out what's going on.

Maverick continued local learning in late 2012 and 2013 using rapid experimentation with A/B testing of many small changes such as in-course content and delivery. A manager elaborated:

> We've experimented with different versions of what works and what doesn't, what scales, keeping time zones, different languages, all of this into account, because our students are all over.

Over time, Maverick learned much about students. For example, a cofounder described improvements to

Table 4. Competitive Vision and Broad Learning (2012–2013)

Process steps	Actions	Representative illustrations	Results	Representative illustrations
Competitive vision	• Substitute for and ultimately replaces many universities - 3/3 founders and all investors agreed (*early 2012 – late 2013*)	*We're really trying to disrupt higher education.* (Cofounder) *We'll be just like any other university, but a university for the 21st Century.* (CEO) *I don't think they had a business model other than disrupt Harvard.* (Investor)	• Major media attention (e.g., 17 focal articles in outlets like *New York Times, Tech Crunch, Chronicle of Higher Education*)	*Big-name universities are understandably loath to alter long-held procedures…So be it, Maverick says.* (Media) *Maverick is the gorilla of MOOCs.* (Media)
Local learning via rapid experimentation	• Rapid experimentation to learn about nascent MOOC market e.g., - Course content - Mentoring - Faculty - Quiz features (*early 2012 – mid 2013*)	*We often do A/B testing where we test two different ways of conveying something and observe the effect.* (Cofounder) *We call the people who drop out, and find out what's going on.* (Cofounder) *We've experimented with different versions of what works and what doesn't, what scales.* (Manager)	• Improved course design and student retention • Identified needed activities, e.g., - Mentoring - Credentials - Placement	*At first. So while we were being celebrated as the big disruptor, the heroes who finally brought higher education into the 21st Century, the numbers didn't work!* (Cofounder) *Later. We now actually staff those [MOOCs] with mentors and online hotline 24/7.* (Cofounder)
Distant learning via "big bet" experiments	• First MOOC online MS degree - Elite public university partner - $7,000 price - MS degree for outstanding grad students (*mid 2012 - late 2013*)	*This is truly a moon shot, and much of what we project are speculations at this point. But if this model stands, it could serve as a blueprint for making higher education more accessible in the 21st century.* (CEO) *It is an experiment that no other institution of our caliber has embarked on (yet!)…An opportunity to be a leader rather than a follower if we act quickly.* (Univ. leader)	• 1 of 2 university relationships • Fast for university but slow for Maverick • Several years later. High demand and successful degree	*At first. We found the right match in our partnership.* (Executive) *Later. "Very slow."* (CEO) *Several years later. [University was] able to not only serve a lot more students than on campus. They were serving categorically different students.* (Market expert)
	• First low-cost MOOC courses for credit - Large public university system partner - $150 price - Remedial courses for freshmen (*mid 2012 - late 2013*)	*The Governor …approached Maverick to come up with a technological solution for what has become a vexing challenge …more than 50% of entering students cannot meet basic requirements.* (Media) *You have the ability to change the entire system. It's great! It's innovative! Why wouldn't you do it, right?* (Executive)	• At first. Low completion rates (about 40% v. 75% on-campus courses) • Later. Better student outcomes but intense criticism - Faculty backlash - Senate demands review - Media critique: *Maverick Debacle, MOOCs get an F*	*At first. We have to be honest about the fact that we're experimenting… We're not perfect yet.* (Cofounder) *Later. Completion rates in the pilots we've been running have been 85%, as opposed to 5% or 4% which is common in MOOC-land!* (Manager) *The move to MOOCs comes at great peril to our university.* (Typical faculty member)

mentoring based on this learning and a related insight into the value of credentials:

> We recently looked into the biggest drawback of MOOCs, which is the enormous dropout rates … Some of the MOOCs that we offer - we now actually staff those with mentors and online hotline 24/7 … And I think there's value in credentialing.

In late 2012, Maverick added to its broad learning with distant learning via "big bet" experiments that gave insights that were far from the team's current knowledge. By *"big bet" experiment*, we mean testing a set of multiple changes in a single setting, often over time. Maverick had two such experiments.

In one, a large and prominent public university approached Maverick in late 2012 to deliver an online master's degree in a key technical discipline that was in high demand. Although Maverick had declined other university relationships, they accepted this as a unique opportunity to experiment with an elite university on a MOOC-based MS degree, one that could accommodate many more students at a much lower cost than an on-campus degree. It would be the first MS degree in the MOOC market. The CEO enthused about a *"moon shot"* and pointed to the chance of being a blueprint for significantly increasing access to higher education. The CEO elaborated:

> I have been dreaming of putting an entire degree online, and to make access to the material free of charge … This is truly a moon shot, and much of what we project are speculations at this point. But if this model stands, it could serve as a blueprint for making higher education more accessible in the 21st century.

The motivations of university leaders for the degree were more varied. For some, this degree was an opportunity to lead a potentially transformative innovation in higher education. Others saw partnering with Maverick as an opportunity to learn about online education. A university leader summarized:

> There is currently tremendous popular interest in MOOCs, but no "top-ten" quality degree program built on the platform … It is an experiment that no other institution of our caliber has embarked on (yet!). But everyone is talking about moving in this direction.

Consistent with norms of the higher education field, the degree proposal went to the Faculty Senate. Some professors described *"significant internal disagreements."* Another observed, *"I wouldn't call it disagreement … I would call it typical heated academic debate."* Six months later (spring 2013), the Senate voted to approve the degree. Courses would start another six months later (early 2014) to fit the academic calendar. For the higher education field, this was fast. Senate notes indicated that the degree was *"moving forward at a rapid pace."* But for Maverick, as the CEO noted, it was *"very slow."*

Although the partnership proceeded, Maverick was frustrated by the slow pace of academic norms like faculty debate and rigid practices like the academic calendar. An executive noted, "[CEO] just got burnt out."

A second "big bet" experiment also began in late 2012 but targeted remedial courses for freshmen. A governor approached Maverick to address a crisis in the state's university system. More than 50% of freshmen could not meet basic requirements. A media outlet noted:

> The Governor, who has been pushing state universities to move more aggressively into online education, approached Maverick to come up with a technological solution for what has become a vexing challenge … more than 50% of entering students cannot meet basic requirements.

Maverick saw this experiment as an exciting opportunity to add for-credit courses to the MOOC market for the first time and to address a significant challenge in higher education. An executive enthused, *"You have the ability to change the entire system. It's great! It's innovative! Why wouldn't you do it, right?"* A media outlet echoed:

> The state university's deal with Maverick is the first time that professors at a university have collaborated with a provider of a MOOC — massive open online course — to create for-credit courses with students watching videos and taking interactive quizzes, and receiving support from online mentors.

In early 2013, Maverick and the university system agreed to experiment with three online remedial courses for credit to several hundred students. Yet experimentation proved contentious. Some professors saw the experiment as inconsistent with the values of the higher education field, like research. For example, a professor warily observed, *"We're a little apprehensive about the MOOC model and the MOOC mania because there isn't a lot of research about it."* Others saw the MOOC experiment as contrary to the governance values and curriculum development practices of higher education. As a faculty member wrote, *"These 'courses' undermine shared governance, run roughshod over established curriculum development procedures."* Still others saw Maverick's experiment as a threat, with one faculty group writing, *"Let's not kid ourselves. Administrators are beginning a process of replacing faculty with cheap online education."*

Maverick launched the first course in mid-2013. The pass rate was unexpectedly lower than on-campus courses (about 40% versus 75%). Like many ventures, Maverick viewed this failure as a normal part of experimentation. A cofounder described the following:

> We have to be honest about the fact that we're experimenting … We're not perfect yet. There are a lot of improvements we can make … You have to work really hard, look at data, and improve to get better and better and better.

Many faculty disagreed. They saw this failure as contrary to field values around student welfare, particularly for

young students at a vulnerable life stage. In a typical argument, a faculty group claimed, "*There are real-world, long-term consequences when you 'fail fast' in higher education.*"

With the second wave of experiments, completion rates substantially improved. A manager enthused, "*Completion rates in the pilots we've been running have been 85%, as opposed to 5% or 4% which is common in MOOC-land!*" Yet despite these improvements, the media wrote scathing headlines like "*Maverick Debacle*" and "*MOOCs get an F.*" Faculty dissent continued. In a typical comment, a professor warned that "*The move to MOOCs comes at great peril to our university.*" The Faculty Senate demanded a review.

As 2013 ended, Maverick had about 40 free MOOCs, 1.5 million global users, 20 faculty, and two "big bet" experiments. The venture had learned much about nascent market uncertainties like effective online course teaching. Yet it had encountered substantial conflict and delay and gained little legitimacy in the higher education field. Instead, it was hit by negative media coverage and faculty dissent. The venture ended 2013 with an incomplete strategy. That is, its strategy lacked key elements like revenue sources and a business model (Figure 1 and Table 4).

Diplomat: Cooperative Vision and Broad Coalition Formation. A second path to effective strategy formation is a cooperative, diplomacy-centric process. By *diplomacy*, we mean the art and practice of maintaining relations between nations (U.S. State Department 2021). In diplomacy (Kissinger 1994, Freeman 1997, Nye 2008), nations have distinct interests but also recognize mutual dependence when pursuing those interests in a shared world. Where their interests align, nations often form coalitions to advance those interests from a strengthened position. Yet because no two nations have perfectly overlapping interests, they also rely on cocreating solutions to reach compromises on disputed issues. Like diplomacy among nations, our data reveal that Diplomat relied on a cooperative, diplomacy-centric process. It begins with (1) a cooperative vision of the field, leading to (2) coalition building of bilateral relationships with high-status incumbents and then others, and (3) coalition strengthening by solidifying bilateral relationships and adding multilateral ones (Figure 1 and Table 5).

Like Maverick, Diplomat was founded by prominent professors at an elite university. Unlike Maverick, they began with a cooperative vision of Diplomat as a complementor to universities. One cofounder stated, "*I don't think we saw ourselves as disrupting education. We wanted to empower people to have access to broader education.*" The other elaborated, "*We formed Diplomat whose goal is to take the best courses from the best instructors at the best universities and provide them to everyone for free.*"

Given this cooperative vision, they engaged in broad coalition formation with university partners, beginning with coalition building. By *coalition building*, we mean the process of forming bilateral relationships based on shared interests (Lounsbury et al. 2003, David et al. 2013, U.S. State Department 2021). In doing so, Diplomat sought to become a legitimate and valued member of the higher education field.

Diplomat began coalition building by forming bilateral relationships with four high-status universities (two public, two private) about six weeks after founding. These relationships were a simple commitment by the university to add free MOOCs whenever it wished to Diplomat's platform. Diplomat purposefully sought these high-status relationships to gain legitimacy and attract others. A cofounder elaborated:

> We were very fortunate in having the early four universities that were at the top of the rankings … They really gave us a certain sense of legitimacy which is what causes other universities to be willing to jump on board.

Leaders at the four universities had shared interests with Diplomat to be at the forefront of the MOOC wave to democratize education. A university leader elaborated on the decision to join with Diplomat:

> There was something compelling in the story of democratizing education, in open [education], in finding scale and global reach … There would be a few top-tier institutions that were going to engage in the MOOC space.

Leveraging the legitimacy signal of these first bilateral relationships, Diplomat pursued more universities throughout 2012 in what executives termed a "*land grab*" to add university partners. They hoped that a large coalition would be valuable in the future. An executive explained:

> Diplomat was kind of a "land grab," if you will, for signing up all the universities. Where it's like "get all the good names". They're not exactly sure why they're working with us yet, but we want all the partners!

In contrast, Maverick eschewed most university relationships as it focused on learning about the nascent market. It did not, for example, compete in Diplomat's "land grab."

Consistent with high-level diplomacy, a key to coalition building was senior leadership by a cofounder. A manager related, "*[Cofounder] was never in the office … always on planes.*" Another noted, *[Cofounder] flew around those first two years and secured an unbelievable number of universities.*" As in coalition building among nations (Freeman 1997), this cofounder understood that universities have similar interests but also varied ones. Some wanted to expand their own global reach. Some wanted to support the mission of increasing access to

Table 5. Diplomat Era 1: Cooperative Vision and Broad Coalition Formation (2012–2013)

Process steps	Actions	Representative illustration	Results	Representative illustration
Cooperative vision	• Complement universities by expanding their teaching & global impact - 2/2 cofounders and all investors agreed (*early 2012 and beyond*)	*I don't think we saw ourselves as disrupting education.* (Cofounder) *We see a future … where elite universities serve millions, not thousands.* (Diplomat press release)	• Attracted media attention (e.g., 18 focal articles in *New York Times, Tech Crunch, Chronicle of Higher Education*) • Interest from elite universities	*Diplomat has captured lots of eyeballs … The cofounders emphasize the goals they have in common with their university partners … Universities may feel this is a trend they can't resist, and one that might even improve the way they do their job.* (Media)
Coalition building	• Form bilateral relationships with 4 very high-status universities - Affirm cooperative vision (*early 2012*)	*There was something compelling in the story of democratizing education, in open [education], in finding scale and global reach, and the sort of charismatic leadership of Diplomat's academic founders … there would be a few top-tier institutions that were going to engage in the MOOC space.* (University leader)	• Increased legitimacy with very high-status partners - 4 Top-20 universities - Leveraged these relationships to build coalition	*We were very fortunate in having the early four universities that were at the top of the rankings … They really gave us a certain sense of legitimacy which is what causes other universities to be willing to jump on board.* (Cofounder)
	• Add bilateral relationships w/ other top universities - Senior executive leads - Multivocality. Speak the language" of different universities - Easy to join (no content requirements, no fees) (*mid-2012 – late 2013*)	*[Cofounder] was never in the office … always on planes.* (Manager) *The value proposition varied depending on the university …. You had to adjust your talk or speak slightly different languages.* (Partnerships manager) *In order to please our partners, we've pretty much let them put whatever content they want on … We're a coalition of the willing.* (Executive)	• Attracted many partners - Public and private - Research and teaching universities - On 4 continents • Expanded coalition - *2012*: 30 more universities (mostly top 100 global) - *2013*: 60 more universities (mostly top 200) • By far, MOOC market leader for # courses	*[Cofounder] flew around those first two years and secured an unbelievable number of universities.* (Manager) *Diplomat was kind of a "land grab," if you will, for signing up all the universities. Where it's like "get all the good names" … we want all the partners!* (Executive) *The earliest classes were random. Universities tried to pick professors to represent the university well at teaching, were more famous, want to teach, and want to try out this new innovative teaching thing.* (Executive)
Coalition strengthening	• Solidify bilateral relationships - Partner management teams as envoys to specific university partners (*late 2012 and beyond*)	*We have a team of partnership managers, a very talented group of mostly graduates of elite schools who travel regularly to visit the campuses they're responsible for … Their role keeps the relations with the university strong.* (Executive)	• Direct communication channels w/ partners - Administrators, faculty, and staff - Specialize with region-specific needs	*Academic institutions care about their partnership managers. Do they share their value system? … Do I feel like they get me?* (Executive)

Table 5. (Continued)

Process steps	Actions	Representative illustration	Results	Representative illustration
	• Add multilateral relationships - Advisory Board as diplomatic council (9 rotating senior university leaders) (*early 2013 and beyond*)	*The Advisory Board was basically to get high-level buy in from some of our key partners as we thought about rolling out new policies.* (Executive) *The Advisory Board is made up of presidents, provosts, and chancellors from different partners that represent different interests in the partner community.* (Manager)	• Aligned interests and improved buy-in • Gained greater legitimacy in higher education field	*The Advisory Board, has been core to any of Diplomat's activities.* (Executive) *The university advisory board plays a role here in anchoring us a little more academic than the company otherwise would have.* (Executive)
	- Annual Partners Conference as diplomatic summit conference for university partners (*early 2013 and beyond*)	*The idea was to bring the partners together for basically two purposes. One, so the company could bring everyone up-to-date … The other major point was to create a space for our partners to discuss what they were doing and share their learning with one another.* (Executive)	• Improved communication - Better sharing among partners and Diplomat - Better partner feedback - Learn about partners • Gained greater legitimacy in higher education field	*The partnership conference was a great opportunity to actually get real feedback from them, and all at once … They had different goals and it was interesting to see how much that varied, but they were all interested in getting more usage and getting more enrollments.* (Manager)

higher education. Still others wanted to mitigate a perceived threat. An expert, for example, warned, "*Everyone knows what had just happened to traditional print newspapers when digital appeared.*" This cofounder summarized the "pitch" to potential partners:

> One was the amazing reach that universities get, that individual faculty members get. It's not every day you get to reach 100,000 people in one fell swoop. Another was alignment with universities' public mission of getting education to a large number of people. And the third piece was a certain sense of combined fear and inevitability.

Like a skilled diplomat (Padgett and Ansell 1993, Nye 2008), this cofounder could also "*speak the language*" of different kinds of universities—from elite ones interested in maintaining prestige to liberal arts colleges seeking better teaching. This "multi-vocality" meant tailoring the pitch with nuanced value propositions. A manager explained, "*The value proposition varied depending on the university.*"

Another key to coalition building was making it easy to join. Diplomat removed frictions like fees, exclusivity, and complex contracts. Instead, partners simply agreed to offer MOOCs.[4] Diplomat added about 30 more bilateral relationships from its targeted "top 100" universities in 2012. These partners soon contributed about 200 MOOC, from humanities to sciences. Unlike

Maverick, Diplomat did not focus on learning about nascent market uncertainties like courses and students. Rather, Diplomat made it easy to join its coalition by having no particular preferences for faculty or courses. An executive described,

> In order to please our partners, we've pretty much let them [university partners] put whatever content they want on … We're a coalition of the willing.

Yet as a for-profit firm, Diplomat sometimes hit obstacles in the higher education field. Some universities declined to partner, citing Diplomat's for-profit status. A university leader explained, "*What did not make Diplomat attractive to a place like us is the fact that Diplomat's a for-profit. That worked against them.*" Others preferred to wait. A nonprofit entered about eight months after Diplomat in late 2012. This organization followed Diplomat in forming bilateral relationships. Although it was aware of this organization, Diplomat focused on its own strategy formation and continued coalition building and strengthening (next section). Overall, Diplomat gained many bilateral relationships, but not every one.

Diplomat bolstered its broad coalition formation by coalition strengthening via solidifying its bilateral relationships. For example, Diplomat created partner-management teams in late 2012. These teams acted as

"envoys" who met with coalition counterparts to solidify these bilateral relationships. Most team members were recent graduates who were inspired by the aim of democratizing education. A founder described these employees, "*Amazing people who otherwise [without democratizing education] would not have joined.*" Their role was supporting faculty and relationship building but not learning about the nascent market (e.g., courses, students) like Maverick. An executive elaborated:

> We have a team of partnership managers, a very talented group of mostly graduates of elite schools who travel regularly to visit the campuses they're responsible for and keep the conversation going and try to inform … Their role keeps the relations with the university strong.

This executive continued, "*We're cultivating our suppliers, not our customer.*" Central to their "envoy" role was funneling faculty requests for new platform features to Diplomat's engineers. Rather than restricting these requests, Diplomat acquiesced to as many as possible, thus further strengthening these bilateral relationships.

In early 2013, Diplomat strengthened its coalition by adding multilateral relationships. For example, it created a multilateral Advisory Board, a body that is much like a diplomatic council (i.e., governing body among nations). It consisted of nine very senior university leaders (e.g., presidents, provosts) who served rotating terms. The choice of these leaders was particularly astute because they were often faster to embrace change than others. An executive described this board and choice:

> The Advisory Board was basically to get high-level buy in from some of our key partners as we thought about rolling out new policies. Universities move a lot more slowly than the private sector … . And so the dealing with, for example, the provosts on that advisory board is actually very useful because by and large the senior administrators were less resistant to change than their subordinates.

Diplomat also strengthened the coalition by adding other multilateral relationships to its coalition. For example, Diplomat organized an Annual Partners Conference. Holding the first conference at an Ivy League campus in early 2013 helped to enhance Diplomat's legitimacy. The aims were twofold: solidify Diplomat's bilateral relationships with its partners and facilitate those partners' building relationships with each other. Thus, Diplomat strengthened the entire coalition but again, did not focus on learning about the nascent market. An executive explained:

> The idea was to bring the partners together for basically two purposes. One, so the company could bring everyone up-to-date on what we were doing … The other major point was to create a space for our partners to discuss what they were doing.

As 2013 ended, Diplomat had more than 500 free MOOCs, about five million global users, and more than 90 university partners, all the highest in the nascent MOOC market. Diplomat had formed a broad coalition of university partners and reached one million users faster than Facebook. Yet it had learned little about nascent market uncertainties like students and courses. Diplomat ended 2013 with an incomplete strategy. That is, its strategy lacked key elements like revenue sources and a business model (Figure 1 and Table 5).

Summary. Maverick's competitive vision led to broad learning—both local and distant—about many uncertainties in the nascent MOOC market. Conversely, Diplomat's cooperative vision led to forming a broad coalition of university partners that established Diplomat as a legitimate and valued field member. Yet Diplomat did not learn much about the uncertainties of the nascent MOOC market, and Maverick gained little legitimacy in the higher education field. Both had incomplete strategies that lacked key elements like revenue sources and a business model.

Why did these very similar ventures pursue very different strategy formation processes (Table 1 and Figure 1)? We reviewed our data and were struck by nondemographic founder differences, especially founder identity. By *founder identity*, we mean an individual's understanding of "who I want to be as an entrepreneur" (Powell and Baker 2014). Fauchart and Gruber (2011) identified three founder identities that affect strategic actions like strategy formation: Darwinian (i.e., self-interest like making money), Communitarian (i.e., improve one's own community via innovation), and Missionary (i.e., strong ambition to advance a social cause). Furthermore, academic founders like ours tend to be communitarians and missionaries (Clarysse et al. 2023).

Consistent with this research, although Diplomat's cofounders had different personalities (e.g., quiet versus gregarious), they shared a communitarian identity. For example, one was described as "*passionate about improving and spreading learning technologies*" and the other as "*inspired to improve on-campus teaching.*" This identity of helping their community (i.e., universities) improve fit with their vision of Diplomat as a complementor and the cooperative, diplomacy-centric process, i.e., working closely within their community to improve teaching via MOOCs. In contrast, Maverick's lead cofounder seemed to have a missionary identity, for example, described as "*on a mission to change the future of education*" and creating the "*university of the future.*" The CEO dismissed traditional universities where "*research is the priority,*" instead claiming "*my values have always been to help students.*" This identity of pursuing an ambitious "university of the future" fit with the CEO's vision of Maverick as a substitute for universities and the competitive, learning-centric process, that is, learning how MOOCs can create a

futuristic university to advance the student-centric social cause of accessible education for all. In summary and although speculative, founder identity may be key to the choice of strategy formation process.

Change Direction and Add Activities (2014–2015)
By 2014, the hype of MOOC mania was giving way to more realistic expectations. A typical article noted, "*Even the loudest critics of MOOCs do not expect them to fade away. More likely they will morph*." Yet although the market was better understood, it remained nascent. For example, a media outlet wrote, "*MOOCs remain in the experimental category — without a compelling business model*."

Maverick: Pivot and Add Optimally Distinct Activities.
Pivots can be helpful during strategy formation when the product, market, or other assumptions appear to be incorrect (Grimes 2018, McDonald and Gao 2019, Kirtley and O'Mahony 2023). By *pivot*, we mean an abrupt, significant change to add or alter one or several elements of a strategy or an incomplete strategy such as products, partners, customers, and/or business models (Blank 2013). Thus, Maverick continued its strategy formation process by (1) a pivot toward a more promising strategy leading to (2) adding optimally distinct activities (Figure 1 and Table 6).

With the prospect of waiting 18 months for the Faculty Senate review (above), Maverick withdrew from this university system relationship and paused (i.e., stopped new actions) to integrate prior learning. For example, Maverick had learned that many students were motivated to complete courses by the prospect of course credit or a degree. Yet this meant collaborating with universities, which Maverick now wanted to avoid because the team had learned that universities, in their view, were slow, difficult to navigate given academic values and norms, and not attuned to student outcomes. In fact, the CEO stated that the "*biggest miscalculation*" was believing that Maverick could work with universities. An executive described the mis-fit between Maverick and universities:

> *It's good to be a little bit separate from existing universities because the speed with which we can move, the type of people we can hire are very different from what we could do at a university, and [we] are just experimenting a lot with non-traditional ways of educating … . It turned out to be a bit of a conflict because universities don't like to be disrupted!*

Yet although it was clear what did not work at Maverick, it was not obvious what to do next.

Maverick and especially its CEO took several months to integrate prior learning into a coherent understanding. An executive noted, "*This was the start of really hard introspection*." During this pause, the CEO crystallized two key insights. First, the critical student outcome is a better job. The CEO observed, "*At the end of the day, the true value proposition of education is employment*." Second, the relevant faculty are in the corporations inventing technologies, not universities. The CEO noted, "*If you focus on the single question of who knows best what students need in the workforce, it's the people already in the workforce*." An executive expanded:

> *We go regularly to heads of engineering, CEOs, and ask them, "What do you want?" And they say, "Well, I'm desperate to get people with these and these and these skills." They'll go back to universities and say, "Are you teaching those skills?" And universities say, "Well kind of … wait a little bit and we're going to do it eventually."*

In early 2014, the CEO publicly announced a pivot away from university partners and courses toward a more promising strategy (i.e., one more likely to achieve commercial success). An investor exclaimed, "*It was an hour on the phone with the CEO. And I said, 'This is a huge insight.'*" This investor went on to observe, "*This is how pivots happen — integrate and change the mental model*!"

Although incomplete, the CEO saw this more promising strategy as focused on lifelong learning and calling for (1) graduate-level technical education (2) for working professionals who want a better job (3) taught by expert employees of corporate partners who would (4) hire the graduating students. Revenue sources and activities would be developed later. An executive enthused:

> *You get this beautiful formula … you can go to students and say, "Look, our value proposition to you is a job that you love because you'll be in demand." For companies, we say, "Look, we have this amazing student, and you don't need to pay a dime to try to recruit them."*

Executives explicitly used the term "pivot." One said, "*We had a very hard pivot*." Another expanded, "*We decided we're not focused on replacing colleges. We're focusing on lifelong learning*." Another executive conceded, "*We were never going to really replace traditional universities*."

Pivots typically require changes to the organization (McDonald and Gao 2019). In mid-2014, the executive team changed. The CEO hired people with deep business experience, whereas the two cofounders who lacked business experience left. An investor explained:

> *The exec staff clearly changed. … This happens any time you do a major pivot. The key people you have before are no longer the key people because your hypotheses about what was important before are no longer important.*

The new executives brought business acumen that fit the pivot toward corporate partners. The new marketing director, for example, proposed an MBA-like market segmentation that Maverick never had. This executive noted, "*I told the CEO I'll only take the job if you*

Table 6. Maverick Era 2: Pivot and Add Optimally Distinct Activities (2014–2015)

Process steps	Actions	Representative illustration	Results	Representative illustration
Pause to integrate prior learning	• Pause to integrate learning since founding - Withdrew from university system partnership - Several-month pause - Stopped new activities (*early 2014*)	*This was the start of really hard introspection … A time where I would say we were in the wandering period. You know, what do we do? You know colleges are not working out. Where do we go? (Executive)* *We really stopped … Strategy is defined a lot of ways but in many ways it's deciding the things you're going to say no to. (CEO)*	• Updated mental model - Value of education is employment - Corporate experts know what students need to learn • Decision to pivot away from universities to lifelong learning	*This was Maverick's ah-ha moment. (Expert)* *We decided we're not focusing on replacing colleges. We're focusing on lifelong learning. (Executive)* *"It was an hour on the phone with the CEO. And I said, "This is a huge insight … This is how pivots happen – integrate and change the mental model."* (Investor)
Pivot toward more promising strategy	• Promising, but incomplete strategy - Graduate-level technical education - Students are working professionals - Faculty are experts at leading tech partners - Tech partners and others hire students (*mid 2014*)	*We had a very hard pivot. (Executive)* *We just decided as a company … to build the core competency of really great partnerships with industry. (Executive)* *You get this beautiful formula … you can go to students and say, "Look, our value proposition to you is a job that you love because you'll be in demand." For companies, we say, "Look, we have this amazing student, and you don't need to pay a dime to try to recruit them." (Executive)*	• Organization change - 2 cofounders (plus others) disagreed and left - Added TMT members w/business experience - Added 9 leading tech firm partners to provide faculty and hire students	*The exec staff clearly changed. … This happens any time you do a major pivot. The key people you have before are no longer the key people because your hypotheses about what was important before are no longer important. (Investor)* *[Employees] either left or got on board … People here are still staunch advocates of students, but they've sort of evolved their thinking into what that means. (Manager)*
Add optimally distinct activities	• Learned and added optimally distinct activities e.g., - Course content - Grading - Mentoring - Placement - Scholarships (*late 2014–2015*)	*We spent hours scouring job descriptions and interviewing hiring managers to identify key skills they look for in iOS developers. (Content manager)* *We ran three different versions of this [program] … very tightly controlled experiments. (Mentoring manager)*	• Added activities e.g., - 4 techno-degrees - "Uber grading" platform - About 40 mentors - Corporate-paid scholarships • Improved student outcomes and enrollments - 60% completion rates (v. 3%–5% for most MOOCs)	*"Why don't we … create a very small program for 6 to 9 months. Focus on a specific job and call it a 'techno-degree'." (CEO)* *They [graders] give students back a very insightful and detailed, human-level, expert-level review of their work, typically within two hours. (Executive)* *We have hundreds of employees enrolled in Maverick scholarship programs so they can reskill where they need to and have these learning opportunities in one place. (Corporate partner)*

agree that we position Maverick this way: Kahn Academy is K-12, Diplomat is universities, and we'll take lifelong learning."

In contrast, because many early employees had come from the higher education field, they often no longer fit well. One executive noted, "*Everybody had come from some kind of academia.*" Another said, "*They didn't understand that you needed to make money to have a job.*" Some employees left, whereas others adapted. A manager noted, "*[Employees] either left or got on board … People here are still staunch advocates of students, but they've sort of evolved their thinking into what that means.*"

Pivots often require new relationships (Blank 2013). In mid-2014, Maverick approached leading technology firms like Google and Nvidia to partner by developing courses, contributing faculty, and hiring graduates. Maverick pursued these firms because of their high status and expertise with in-demand technologies. The firms joined to signal thought leadership and gain preferred access to well-trained job candidates. For example, a firm executive called the partnership a "*no-brainer.*" Another said:

> *We specifically don't make any money from this. We are only really interested in getting the free courses out there, and we are okay with Maverick making money on those things … We believe that doing that for developers will eventually … come back to the company.*

Maverick appreciated that these firms were accustomed to making money, a welcome contrast with university partners. Maverick also appreciated that they were comfortable with speed, again unlike universities. An executive explained, "*Get people together really fast - It's much easier to do that under the ways of tech companies.*" Maverick formed relationships with nine leading tech firms in several months.

The pivot set the stage to add optimally distinct activities in late 2014. By *optimally distinct*, we mean activities that are both strategically effective and legitimate in the field. That is, optimally distinct activities conform to the field but are also advantageously different (Zhao et al. 2017).

Maverick was now focused on "working professionals who want a better job." A manager confirmed, "*The value proposition to the student is that I'm doing this because I want to upskill myself in order to get a better job.*" Yet many students still expected (and benefitted from) some features of traditional universities like course credit and degrees. So at least some activities needed to fit with those of universities but also be different, and probably better, for at least these students.

Central to Maverick's optimal distinctiveness was an innovative degree-like program that Maverick labeled the "techno-degree." The CEO described the initial idea, "*Why don't we … create a very small program for 6 to 9 months. Focus on a specific job and call it a 'techno-*

degree.'" Like traditional university degrees, the techno-degree consisted of related courses taught by faculty. Yet unlike traditional degrees, the techno-degree was short (six to nine months) and corresponded to job titles like web developer and data analyst, not a university's academic disciplines. Also, unlike universities, the "faculty" were corporate employees, and the "courses" were uniquely project-based as an executive described "*really immersive virtual learning experiences.*" Finally, Maverick framed its techno-degree as a new product category within higher education and gave it a legitimating hybrid label (Wry et al. 2014).

Also important for optimal distinctiveness was grading. Similar to universities, Maverick saw the need for "grading," preferably by humans. Yet scaling grading was a challenge. In late 2014, Maverick employees began grading. Students loved this grading but disliked the week-long turnaround. So Maverick experimented with "*Uber for graders*" in which Maverick graduates and others would grade assignments on a piece-rate basis. Over time, Maverick experimented to refine this activity and ultimately attracted enough graders to return assignments in two hours. The cost was also lower cost than employee-graders. A key point is that "Uber grading" was optimally distinct. That is, it resembled university grading but was "better" for at least these students. An executive said:

> *We built an Uber-like platform. Now every person with a computer can become a global code reviewer … They give students back a very insightful and detailed, human-level, expert-level review of their work, typically within two hours. Including detailed feedback on coding style, what works, what doesn't work, and so on.*

He continued, "*Anybody who's been in college is saying, 'Is this possible?'*"

Like universities, Maverick also introduced "student advising," "placement services," and "scholarships" activities, but again by experimenting, including A/B testing. Learning about placement was particularly helpful to Maverick because it led to insights for improving the content of techno-degrees, like iOS Developer. A content manager described this learning:

> *We spent hours scouring job descriptions and interviewing hiring managers to identify the key skills they look for in iOS Developers. The result is a curriculum specifically designed to meet the needs of the job market.*

Another key point is that Maverick's optimally distinct activities were often consistent with the profitability of a successful strategy. For example, the team introduced "scholarships" for students, but corporate partners paid. These scholarships let companies access job candidates and tout their social responsibility. Maverick, in turn, increased revenue and profit while attracting students. An executive noted, "*It [scholarships] propelled us onto a different playing field.*"

By the end of 2015, Maverick had a complete strategy: leading tech companies provide faculty, unique courses, and high-status brands (Figure 1 and Table 3). These and other firms provide jobs. Working professionals pay (or have scholarships), complete technodegrees, and take the jobs. Maverick provides the platform, course production, and global reach. Supporting activities like degrees, grading, and mentoring exist. The strategy was successful (Table 3): Maverick grew from about $3 million in 2014 to $30 million two years later to $90 million in 2018. It continued to prosper. Consistent with changing the field, Maverick made upskilling and advanced tech careers possible for many by lowering cost and access barriers. An expert declared, "*Maverick just nailed it .... Maverick is way way ahead.*" An executive elaborated:

> *We're the only ones that can say we work with partners like [top tech firms] to create cutting-edge content that allows you to get a job .... Nobody says that!*

Diplomat: Segue and Cocreate Profitable Activities. In diplomacy, coalition partners have overlapping interests but rarely identical ones (Freeman 1997, Nye 2008). So nations try to shift coalitions toward their own interests, often by cocreating favorable actions with willing partners. For Diplomat, its broad coalition formation (above) established the venture as a legitimate, valued member in the field and set the stage for a shift toward its own interests. Thus, Diplomat continued its strategy formation process by (1) a segue toward a more promising strategy leading to (2) cocreating profitable activities (Figure 1 and Table 7).

First, Diplomat began a segue toward a more promising strategy (e.g., one more likely to achieve commercial success) in early 2014. By *segue*, we mean a slow, subtle change to add or alter one or several elements of a strategy or an incomplete strategy. Like diplomacy among nations, Diplomat's segue enabled the discreet pursuit of its commercial interests with less chance of upsetting its university partners. Given the slow pace of established fields like higher education and the antipathy of some toward profit making, a segue (not a pivot) was wise. A cofounder said:

> *Universities are venerable institutions with a lot to offer, really amazingly smart, mission-driven people, and so on. But not the most nimble, not the most risk taking, especially when it comes to — I think legitimately — things that are at the core of what makes them who they are, their content, their faculties, their brands. And so it took a while to convince them that the rewards were worth the risks.*

So unlike Maverick's abrupt pivot announced in the media, Diplomat's segue was slow and subtle.

The segue began with a new CEO in early 2014. The two academic cofounders amicably stepped aside as the board sought a new CEO. As one early employee said:

> *There was a mutual understanding that the company had reached a stage of growth where you needed someone with management experience. It was pretty clear that [cofounders] were very good at being visionary and talking. But none of us, especially them, had experience running a company.*

The dilemma was finding a new CEO who understood business while also reassuring Diplomat's partners, many of whom were wary of for-profit firms. As one partner worried, "*Was Diplomat going to exploit us?*" As in diplomacy among nations, Diplomat's choice of top leadership would be a strong signal to its partners of the venture's future intentions. An executive described the dilemma:

> *One point weighing on everybody's mind was what would be the universities' reaction to a change in leadership ....So let's say you bring in someone from Google or Wall Street, they would spook everyone. Like "Oh, now they're just going to grab content and make money."*

The board shrewdly resolved this dilemma. The new CEO was a prominent scholar and a successful president of an elite university who could frame Diplomat's intentions within the higher education field reassuringly. As this CEO noted, "*It's the mission of a great research university to advance knowledge through research and disseminate it through teaching,*" and then went on, "*Diplomat is scaling the teaching mission by orders of magnitude.*" Furthermore, this CEO had enormous academic legitimacy among leaders in the higher education field around the world. An executive said:

> *It was a natural thing coming from one of the most prestigious universities going to a company where we recruit the very best universities in the world. The CEO came with a lot of connections. The CEO knew all of the presidents of leading American universities, most of the leaders of universities in Asia, and quite a few in Europe.*

Yet the new CEO also understood the university as a business given his many years as a university president. Overall, this CEO was an ideal choice, that is, a reassuring profile (i.e., prominent scholar and president of an elite university) to persuade reluctant university partners to let Diplomat make money.

Diplomat continued to segue by adding "successful strategy" to the CEO's mandate in early 2014. He stated, "*I was brought in to perfect the transformation from a pure scale play with no monetization model to make it a business.*" Now the board wanted Diplomat to capitalize on its university relationships and their brands. Yet the risk was "*losing partners.*" The new CEO elaborated:

> *One [objective] was, we need a monetization model. We need to make this a company. A second was we want to make sure our relationships with the university partners are really solid, and not ephemeral ....We all understand that the value of Diplomat was, in large part, its university brands.*

Table 7. Diplomat Era 2: Segue and Cocreate Profitable Activities (2014–2015)

Process steps	Actions	Representative illustration	Results	Representative illustration
Segue toward more promising strategy	• Hired CEO w/field legitimacy and business acumen - Prominent scholar and elite university president named CEO (*early 2014*)	*One point weighing on everybody's mind was what would be the universities' reaction to a change in leadership …. So let's say you bring in someone from Google or Wall Street, they would spook everyone. Like "Oh, now they're just going to grab content and make money."* (Executive)	• Understood the university as a business • Reaffirmed cooperative vision - High legitimacy and connections w/global university leaders	*The CEO came with a lot of connections. The CEO knew all of the presidents of leading American universities, most of the leaders of universities in Asia, and quite a few in Europe.* (Executive) *We're very mindful that we don't want to be a university. We want to be a facilitator.* (CEO)
	• New CEO mandate for successful strategy - Monetization - Capitalize on university brands - Strengthen university relationships (*early 2014*) • Shift employee focus to successful strategy - Committees for profitable product ideas, bottom-up (*early 2014*)	*There were several [board objectives]. One was, we need a monetization model. We need to make this a company. A second was, we want to make sure our relationships with the university partners are really solid.* (CEO) *Diplomat added committees to brainstorm product ideas to make money. It was bottom-up. Let many flowers bloom.* (Manager)	• More focus on Diplomat as a business by senior executives • Strategic thinking about products, learners, and profit by employees • Several potentially profitable new product ideas emerged	*One of the first things I did after joining was a P&L review. P&L, and content strategy, and packaging of content … focus on the value we are delivering …. giving a voice to the business side.* (CEO) *Diplomat never had a content strategy before. We just let partners put up whatever they wanted.* (Executive)
Cocreate profitable activities	• Floated ill-defined idea for MOOCs sequence - Opt-in opportunity for university partners • Collaborative learning w/3 professors at small research university partner to cocreate credential (*mid 2014*)	*I'm not sure Diplomat had nailed down the terminology … It was informal.* (Professor) *The intersection of Diplomat and our university being really flexible has allowed us to do really creative things … to deliver education in a way that nobody's done before.* (Professor)	• Successful paid credential - 1st "blockbuster" product (800,000 students in 6 months) • Exemplar for successful paid credential • Universities finally see how MOOCs can make money and still do good	*All of a sudden [small research university] was making millions … Now there wasn't such a gap necessarily between being able to serve learners vs. being able to actually make a profit.* (Manager) *This was the first time universities started to see, "Whoa, I could make some real money from this thing".* (Partnership manager)
	• Large public university partner suggests MOOC-based MBA - Diplomat agrees • Collaborative learning with university partner to cocreate degree (*mid 2014 - early 2015*) • Unilateral creation of on-demand platform (*mid - late 2014*)	*One of the things I really liked about Diplomat was their willingness to listen to our ideas and actually implement them … Diplomat was willing to have that conversation with us and willing to innovate with us.* (University administrator) *One of the big pushes was to move our content to an on-demand model. We didn't quite know*	• Successful MOOC-based MBA - Low-cost, novel degree - Fit public university mandate • Diplomat spreads successful exemplar for MOOC-based degrees • At first. Unsuccessful on-demand platform	*You can charge $20,000 and it's still much cheaper than a normal MBA.* (Executive) *We now started to build a team of people to go out to our partners and talk seriously about degrees.* (CEO) At first. *I became a very vocal voice against on demand just because of learner behavior.*

Table 7. (Continued)

Process steps	Actions	Representative illustration	Results	Representative illustration
		whether that means no deadlines or some auto-generated ones. The idea was, "Hey, this content is what we have. We should be running it all the time. (Manager)	• Later. Cocreate successful on-demand platform and courses - Courses every 4 weeks w/soft deadlines and cohorts	(University partner) *It [on-demand platform] definitely scaled up too quickly.* (Manager)
	• Brought freemium revenue idea to select senior university leaders • After their agreement, collaborative learning with university partners to cocreate paywall (*2015*)	*We persuaded administrations that this was in their long-term interest. "If you want us to stick around and be able to do this for you, distribute these courses. We have to create something people will pay for."* (CEO)	• Successful paywall for extras like grading, but also free and open access • Revenue for Diplomat and universities	*We landed on a model where you could watch all the videos in any course … but you can't take or submit assessments, and get feedback on them unless you're a paid student.* (Product manager)

Yet although the CEO mandate changed, Diplomat's cooperative (not competitive) vision did not. The new CEO reaffirmed, "*We're very mindful that we don't want to be a university. We want to be a facilitator … Make the great universities have an even bigger impact on the world.*"

In mid-2014, Diplomat continued to segue by shifting employee focus to thinking about strategy. For example, the new CEO added several committees to brainstorm ideas for profitable products from the bottom up. A manager described these committees as "*Let many flowers bloom.*" Diplomat had not previously focused on courses or students. Rather, they had left these decisions to universities. As an executive noted, "*We just let the partners put up whatever they wanted.*" Now, employees were thinking strategically about products, learners, and profit.

Second, this segue led to cocreating profitable activities via collaborative learning with willing incumbents. For some university leaders and even more faculty, profit was associated with unsavory for-profit "universities" like the Corinthian Colleges. Indeed, it can be hard to remember the strong reluctance of universities to grant credit and monetize MOOCs with Diplomat that may seem trivial now.[5] Yet strong reluctance existed. As one executive described, "*There's a tension with us being for-profit and them feeling some mistrust like 'are they going to take advantage of us?'*" A partner echoed, "*Diplomat is a for-profit company. That scared a lot of people. Because if you have a for-profit company at the center …. it's just centralization of power.*" A typical professor exclaimed, "*We don't want to be Netflix!*" So, like nations trying to shift their coalition by cocreating favorable actions with partners, cocreating profitable activities was key to Diplomat's shifting the coalition toward its own interest in a successful strategy.

An early cocreation was the paid credential. In mid-2014, Diplomat floated an idea among its many university partners for a paid sequence of MOOCs but did not tightly define it. A professor noted, "*I'm not sure Diplomat had nailed down the terminology and how they were going to deliver … It was informal.*" Consistent with universities' reluctance to monetize MOOCs, only three professors at one small university (out of about 100 partners) opted in. Diplomat and these professors collaboratively learned about the activities for a multicourse "credential" like timing, pricing, and content. A key point is that these professors valued the creativity of Diplomat's collaborative learning approach. One said:

> The intersection of Diplomat and our university being really flexible has allowed us to do really creative things … to deliver education in a way that nobody's done before.

Diplomat revealed the mutual financial and student success of this credential at its Annual Partners Conference. One executive called it "*an accidental home run*," whereas other attendees called it a "*blockbuster.*" Many saw this credential as a "*pivotal moment*"—that is, universities finally saw the possibilities of MOOCs to make money, not just democratize education. A manager noted:

> This was the first time universities started to see, "Whoa. I could actually make some real money from this thing, and hire more faculty, have more …" Until then, I think it was for most of them, like a philanthropic offering.

Moreover, the field regarded Diplomat's partner as a top-tier research university, thus adding legitimacy to the paid credential. A partnership manager noted, "*All of a sudden [small research university] was making millions … Now there wasn't such a gap necessarily between being able to serve*

learners vs. being able to actually make a profit." An executive summarized this turning point.

> *It was a big turning point for the company because we said, "Hey okay, we can make money!" … We went back to our partners and said, "Hey look, this is the kind of revenue [small research university] is making."*

Diplomat continued with cocreation. In mid-2014, a large public university brought an idea for a MOOC-based MBA to Diplomat. Prior to its segue, Diplomat agreed to almost any partner's idea. Now, the team prioritized profit, particularly the relevance of scale for profit: *"We're playing for scale and don't want to introduce features that would maybe improve learning, but reduce capacity."* By these criteria, Diplomat saw a MOOC MBA as attractive. For university leaders, reaching many people with a low-cost degree was central to its mandate as a public university. As one described:

> *We started with, "If we could offer this [MBA] at a much lower cost …. How can we do that, but still have it be financially viable for the institution? Well, we can scale it … with MOOCs!"*

The parties began collaborative learning, described by both as *"creative"* and *"agonizing."* A key point is that again the partner valued Diplomat's collaborative learning. A university leader said, *"Diplomat was willing to have that conversation with us."* An administrator echoed:

> *One of the things I really liked about Diplomat was their willingness to listen to our ideas and actually implement them. And some of them were a little bit crazy … We didn't want to just take the traditional degree and put it online because we didn't think that would work.*

The degree was successful, leading Diplomat to organize a team to work with other university partners to develop online degrees.

Yet, like diplomacy (Nye 2008), unilateral creation often fails, as Diplomat saw with on-demand. Diplomat unilaterally developed a platform for on-demand courses. As a manager noted:

> *One of the big pushes was to move our content to an on-demand model …. The idea was, Hey, this content is what we have. We should be running it all the time, with or without professors.*

University partners, however, objected. Some argued that on-demand would fail. A partner declared, *"I became a very vocal voice against on-demand, just because of learner behavior. I know they need structure."* On-demand also broke long-held norms of the higher education field. As a manager described:

> *When you try to get people whose product is so intimately tied to a specific time and space to change, the idea of blowing these up makes their heads explode! University administrators and faculty don't like that feeling.*

Despite these objections, Diplomat pushed ahead and failed. As university critics predicted, learners actually do benefit from due dates and structure. After this setback, Diplomat collaboratively learned with a few university partners by experimenting with start dates, cohorts, and deadlines. Collaborative learning was slow but also part of cocreation with universities. As the CEO noted:

> *The first impulse is, "It's the Internet! … People should get this whenever they want it." Yet these changes took many conversations with our leading partners. You know, meetings and conference calls and campus visits, to get people on board … We just have to live with that.*

Finally, a critical cocreation was the paywall. In early 2015, Diplomat had an idea for a freemium revenue model, that is, free access to all courses, but payment for assessment and credit. An executive described this as the *"next step to profitability."* Diplomat's executives astutely framed the paywall as beneficial for universities: revenue for them and necessary for Diplomat's survival. After gaining agreement from senior leaders at select partners, Diplomat collaboratively learned with several universities (e.g., freemium details, A/B testing of price points). As a product manager noted:

> *We landed on a model where you could watch all the videos in any course … but you can't take or submit the assessments, and get feedback on them, unless you're a paid student.*

Noting the slow pace but ultimate success, an executive observed, *"We could've done that [paywall] six months earlier. We were hesitant … about offending our partners."*

By the end of 2015, Diplomat had a complete strategy: university partners provide faculty, courses, and brands (Figure 1 and Table 3). Learners enroll in courses, credentials, and degrees (some paying, many not). Diplomat provides the platform and global reach. Profit-making activities like credentials, paywalls, and degree programs exist. The strategy was successful (Table 3). Diplomat grew from $3 million in revenue in 2014 to $60 million two years later to $300 million in 2020, was the consistent market leader, and continued to prosper. Consistent with changing the field, about 90% of its millions of learners took more than a thousand courses for free (Table 3). The CEO summarized, *"We figured out monetization of MOOCs."* A board member added:

> *We navigated the tension between the startup world and the university world relatively well … We were able to convince the universities that we were not greedy business people out to put them out of business, but really part of who they were. And we were all in it together.*

Summary. After its pivot, Maverick built on its earlier broad learning about the nascent market. By adding optimally distinct activities, it added activities that

were both strategically effective and legitimate in the field. After its segue, Diplomat built on its earlier broad coalition formation. By cocreating profitable activities via collaborative learning about the nascent market with willing incumbents, it also added activities that were both strategically effective and legitimate in the field. Overall, each venture built on its earlier focus, changed direction, and effectively formed a strategy (Figure 1 and Table 3).

Why did these ventures mostly ignore peers and other possible rivals in their strategy formation processes?[6] One reason is that rivalry is perceptual and so not necessarily reciprocal (Thatchenkery and Katila 2021). A firm may not see others as rivals even when it is seen as a rival. Prior work further suggests that high-performing ventures in nascent markets are largely self-focused during strategy formation (McDonald and Eisenhardt 2020). Although aware of peers, they engage in "parallel play," that is, focusing on forming their own strategies, not worrying about potential rivals. Potential rivals are usually too insignificant, and nascent markets are too uncertain (Moeen et al. 2020). Thus, high-performing ventures are like "good golfers"—that is, they "*play the course [i.e., nascent market], not the players [i.e., potential rivals]*" (McDonald and Eisenhardt 2020). Consistent with parallel play, a Maverick founder said, "*I don't worry about other ventures,*" and a Diplomat investor advised, "*Focus on the quality of the product itself and gaining traction with universities and students, the rest will take care of itself.*" In contrast, rivals become relevant as markets clarify and are no longer nascent (Furr and Eisenhardt 2021), which occurred in the MOOC market in 2016 after our study ended (see Online Appendix for details).

Discussion

We began by asking how ventures effectively form strategy in the nascent markets that emerge within established fields. Many of society's grand challenges, such as improving public health (Gao and McDonald 2022), building smart public infrastructure (Zuzul and Edmondson 2017), and increasing access to education (Christensen et al. 2015), occur in these fields. By tracking two closely matched ventures, we contribute a theoretical framework of two different yet effective strategy formation processes.

Broadly, we also contribute to *institutional theory and institutional entrepreneurship* by introducing the field-changing tactics of diplomacy and the relevance of firm performance. To *learning theory and entrepreneurship*, we identify limits to rapid experimentation and the relevance of collaborative learning with willing incumbents for changing established fields. To *practice*, we emphasize the difficulty of achieving both commercial success and societal impact. Thus, we temper entrepreneurial exuberance with a nuanced view of what

ventures that aim for both can actually achieve. Overall, we bridge the gap between commercial and institutional entrepreneurship.

Strategy Formation in Nascent Markets Within Established Fields

Our primary contribution is a theoretical framework for how ventures can effectively form strategy in nascent markets within established fields, particularly ones where noncommercial logics matter. It consists of two distinct processes (Figure 1). One is a *competitive, learning-centric* process. It begins with a (1) competitive vision of the venture as a substitute and ultimately replacement for field incumbents like traditional universities. Given this vision, there is little reason to engage with field incumbents. Instead, this vision encourages (2) broad learning to resolve at least some uncertainties of the nascent market. Yet because the venture has not yet formed an effective strategy, the process changes direction by a (3) pivot toward a more promising strategy. The pivot sets the stage for (4) adding optimally distinct activities. These activities are both familiar and expected (and thus legitimate) within the field but also different and often better in the nascent market. Overall, the central idea is that ventures can effectively form strategy by (1) resolving at least some uncertainties of the nascent market and then (2) pivoting to achieve a successful strategy and change the established field by adding optimally distinct activities (i.e., ones that are both legitimate and strategically effective).

The second process is a *cooperative, diplomacy-centric* one. It begins with a (1) cooperative vision of the venture as a complementor to field incumbents like traditional universities. Given this vision, it is important to engage with the field. So this vision encourages (2) broad coalition formation in the established field, including bilateral and multilateral relationships, to become a legitimate and valued field member. Yet, because the venture has not yet formed an effective strategy, the process changes direction by a (3) segue toward a more promising strategy. This segue sets the stage for (4) cocreating profitable activities via collaborative learning with willing incumbents. Overall, the central idea is that ventures can effectively form strategy by (1) becoming a legitimate and valued field member and then (2) segueing to achieve a successful strategy and address nascent market uncertainties by cocreating profitable activities (i.e., ones that are both legitimate and strategically effective).

A key question is, why are both processes effective? One reason is that both of them address the *dual problem* that ventures in nascent markets within established fields face: forming a successful strategy by learning about nascent market uncertainties while changing an established field by building legitimacy. But they do so in a *different sequence*. Thus, Maverick's process first

emphasizes learning about the next market, and then later calls for a pivot to add optimally distinct activities that build legitimacy within the field. In contrast, although Diplomat's process first emphasizes building legitimacy in the field, it later calls for a segue to cocreate profitable activities that address nascent market uncertainties. Overall and despite different sequences, both processes address learning about a nascent market and building legitimacy in an established field.

More subtly, both processes have the *same problem-solving structure*. That is, both begin by focusing on one task: learning in the nascent market or building legitimacy in the established field—but not both. Why? This structure fits with strategy formation as a novel, complex problem (Baumann and Siggelkow 2013, Ott and Eisenhardt 2020). By *novel*, we mean a problem that is new or not previously seen, like strategy formation in a specific nascent market. By *complex*, we mean a problem with interconnected parts, like strategy formation that has both market and field parts. Such problems require decision weaving (i.e., hybrid) problem solving (Ott and Eisenhardt 2020, Bremner and Eisenhardt 2022). That is, actors partially solve one part of the problem, change direction, and then partially solve a second part while building on the partial solution to the first. This repeats until the entire problem is solved. Similarly, our ventures (1) partially solved either the market (Maverick) or the field (Diplomat), (2) changed direction, and then (3) solved both by building on the first.

In contrast, modular problem solving (i.e., trying to solve the field and the market in parallel) risks loss of fit (Baumann and Siggelkow 2013). Trying to solve them together simultaneously (integrative problem solving) is too difficult because too much is changing at once (Ott and Eisenhardt 2020), especially with tasks that require different skills and time frames, for example, rapid A/B experimentation to learn versus slow relationship building with universities. Finally, oscillating between the two is inefficient because it slows learning, lowers effectiveness, and increases forgetting (Rubinstein et al. 2001, Monsell 2003).

Overall, the insight that both processes have a decision weaving (i.e., hybrid) problem-solving structure that fits the strategy formation problem is potentially significant. This insight implies that other problem-solving structures (e.g., modular, integrative, oscillating) are unlikely to be effective. Thus, although we cannot rule out the existence of other effective processes, this insight (albeit speculative) suggests that any other effective process will also have a decision weaving (i.e., hybrid) problem-solving structure.

Contributing to Institutional Theory and Institutional Entrepreneurship

We also contribute to institutional theory and institutional entrepreneurship. First, we introduce the *diplomacy lens*. A key strand of institutional entrepreneurship research examines how actors influence policymakers, especially regulators (Gurses and Ozcan 2015, Ansari et al. 2016, Lee et al. 2018). These regulators are often conceptualized as single actors serving the public good (see, e.g., Gao and McDonald 2022). In contrast, the diplomacy lens is valuable because ventures, like nations, are standalone entities that pursue their own interests in an interconnected world of other organizations also pursuing their own interests (Freeman 1997). This lens fits well with the situations that ventures like Diplomat face.

By introducing the diplomacy lens, we contribute its field-changing tactics to institutional entrepreneurship. Diplomatic tactics for forming bilateral relationships (e.g., senior leadership, multivocality, initially high-status partners) expand the repertoire of institutional entrepreneurs beyond enhancing legitimacy and influencing policymakers (see, e.g., Gurses and Ozcan 2015, Gao and McDonald 2022). Diplomatic tactics for solidifying bilateral relationships (e.g., partner teams as envoys) and for adding multilateral relationships (e.g., advisory boards as councils) (Nye 2008) further augment this repertoire. Finally, diplomatic tactics like segues and cocreation with willing incumbents gradually shift the field further toward the interests of the institutional entrepreneur.

Second, we contribute to institutional entrepreneurship by including *firm performance* as a dependent variable. Prior work typically focuses on field change as the dependent variable (see, e.g., Battilana et al. 2009, Pacheco et al. 2010). Although useful, we broaden institutional entrepreneurship by using effective strategy formation, including the performance of commercial firms, as a dependent variable. In doing so, we connect commercial and institutional entrepreneurship. Indeed, ventures that focus solely on legitimacy within the field but neglect an effective strategy rarely survive (Zuzul and Edmondson 2017).

Finally, it is important to ask whether our ventures changed the higher education field. Online learning proved difficult, and universities remain largely as they were. Yet, the ventures did modestly change the field. Diplomat offers global access to more than a thousand courses by millions of learners, about 90% of whom do not pay. Maverick offers low-cost, global access to techno-degrees that have made upskilling and advanced tech careers available to many by lowering cost and access barriers. Although modest, these changes did increase access to higher education and altered the field. Nonetheless, the implication for *practice* is that achieving both commercial success and societal impact is difficult. Thus, we temper entrepreneurial enthusiasm with a realistic view of what ventures that aim for both can actually achieve.

Contributions to Learning Theory and Entrepreneurship

We contribute to learning theory and entrepreneurship by identifying the unique features of learning within established fields like healthcare, education, and national security. These fields matter because they are both ubiquitous and often relevant for society's grand challenges. First, we identify *limits to rapid experimentation*. A key research strand emphasizes this learning process to address uncertainties in nascent markets (see, e.g., Ozcan and Eisenhardt 2009, Andries et al. 2013, Van Angeren and Karunakaran 2023). Yet, as we saw with Maverick's experiences in a university system and Diplomat's on-demand platform, rapid experimentation can mis-fit with the measured pace of established fields. Venture mantras for learning like "move fast, break things" can be out of step with field values like protecting students and field norms like collective governance. This suggests care when using rapid experimentation in established fields. More speculatively, pivots may also have limits. They may be too abrupt in established fields, as Diplomat feared. Pivots may be so large that they shift ventures away from the "hard problems" of established fields (e.g., remedial education for disadvantaged students), as Maverick found.

Second, we add *collaborative learning* to the repertoire of learning processes in nascent markets. Collaborative learning with willing incumbents can be effective for introducing cocreated changes in established fields, as we saw at Diplomat. These incumbents have field knowledge and legitimacy, both of which are useful for avoiding mistakes (e.g., Diplomat's on-demand platform) and for creating profitable and legitimate activities in the field (e.g., Diplomat's paid credentials). Incumbent partners can also be role models that encourage change by other incumbents that is favorable to the venture.

Boundary Conditions, Limitations, and Future Directions

As in all theory-building studies, it is essential to address potential boundary conditions. One is whether our theoretical framework generalizes to *mature firms* entering a nascent market within an established field. On the one hand, if the mature firm is new to the field and lacks existing relationships and legitimacy, then it is likely to face the dual problem that our theoretical framework addresses. So, our framework is likely to generalize. On the other hand, if the mature firm is already in the field or has existing relationships with field incumbents, then our framework may only modestly apply.

Another potential boundary condition is whether our theoretical framework generalizes to *other fields.* On the one hand, if the field is an established one (especially ones where noncommercial logics matter), then our framework likely generalizes. If the field also involves regulation, then prior work on regulatory actors is also likely to be relevant (see, e.g., Gurses and Ozcan 2015). On the other hand, if the field is new, incumbents and their status order may be unstable, unclear, or nonexistent. Here, the formation of broad coalitions might be useful as per our framework, but it is unclear with whom and how to form such coalitions. In fact, because the field itself may lack legitimacy, creating field legitimacy is likely more critical (Navis and Glynn 2010, Wry et al. 2014). In summary, although our theoretical framework likely has some generalizability, testing its boundary conditions is a key avenue for future research.

Like all research, ours has limitations. One is the possibility of overdetermined theory. As per Methods, we took mitigating steps: (1) regularization from machine learning, that is, simple theory with only important, well-grounded constructs (Tidhar and Eisenhardt 2020, Choudhury et al. 2021), and (2) theoretical arguments that limit random correlations and poor construct abstraction (Eisenhardt 2021). Nonetheless, our theory may be overdetermined. A second limitation is the possible existence of other effective processes. Per above, our two processes share the same problem-solving structure that fits complex, novel problems like strategy formation. Although this insight suggests a limited range of problem-solving structures, we cannot rule out other effective processes. Another limitation is our sampling. Our theoretical sampling of a unique comparison of two successful ventures is acceptable, per Methods. Also, both ventures made mistakes that offer counterfactuals. That said, studying unsuccessful ventures would likely enhance our theory.

Conclusion

We began by describing the dual problem of strategy formation faced by ventures in nascent markets within established fields where grand challenges often occur. By tracking two well-matched ventures in the nascent MOOC market that emerged in the U.S. higher education field, we ask how ventures effectively form strategy in these settings. Our core contribution is a theoretical framework that describes two distinct yet effective strategy formation processes. Broadly, we bridge the gap between institutional and commercial entrepreneurship.

authors also acknowledge the valuable insights of our editor and anonymous reviewers.

Endnotes

[1] Institutional theory, like institutional economics (North 1991), emphasizes that formal institutions like the state, family, and religion create forces that structure economic and social interaction (Scott 2008, Thornton et al 2012). Institutional theory, however, is broader because it includes not only formal and legal forces of institutions but also informal and socio-cognitive ones that are relevant in our study (Battilana et al 2009).

[2] A field can have one or several logics like professional, commercial, and state (Pahnke et al. 2015). By *commercial logic*, we mean the set of values like profit-making, norms like efficiency, and behaviors for producing and selling products by a firm, typically in a capitalist economy, in order to gain revenue, profit, and positive financial returns for owners (Pache and Santos 2013). It is a primary logic of for-profit firms.

[3] By complete, we mean a strategy that has all key elements of a strategy, not a strategy that does not change.

[4] Diplomat's bilateral relationships in 2012–2013 had no incentives, payments, or revenue. Universities chose faculty and courses for the platform.

[5] As an executive told us, "*You have to understand that … persuading universities to grant credit for online courses, make money, or if they are a first-tier university, associating their name with them was very very difficult then.*"

[6] We appreciate the Editor's posing this intriguing question.

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Eric Volmar is an Associate Director at the Freeman Spogli Institute for International Studies at Stanford University. He received his PhD from Stanford University. His work explores how

mission-driven entrepreneurs form strategy, organize, and compete. He focuses on novel sources of innovation within the context of society's powerful institutions, such as government and education. Address: Encina Hall Center, 616 Jane Stanford Way, Stanford, CA 94305, USA; email: volmar@stanford.edu.

Kathleen M. Eisenhardt is the SW Ascherman MD Professor of Strategy and Organization at Stanford University. She received her PhD from Stanford University. Her research interests are at the nexus of strategy, organization theory, and entrepreneurship. She focuses on nascent markets and technology-based firms, including strategy formation, business models, both market and non-market competition, and scaling firm growth. Address: Department of Management Science and Engineering, Stanford University, Stanford, CA 94305, USA; email: kme@stanford.edu.