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Metacompetition: Competing over the Game to Be Played

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Abstract. Strategy research often studies competitions among organizations and defines the winners of these competitions as "great." But we typically treat as a given the specific formal and informal rules of the game, the logics, that govern these competition. Yet the logics governing competitions themselves are decided through a higher-level "metacompetition" with other possible logics. Metacompetitions determine who can compete, how they can compete, the criteria that will be used to evaluate success and failure, and the payoffs to competition. When we ask "where do great strategies come from" but ignore metacompetition, we take as a given the very process that gives us the rules by which we determine greatness. In this paper I argue that to understand where great strategies come from, we must first understand how metacompetition determines which logics prevail in a market. I develop an ecological model of metacompetition, and I estimate the model using data on metacompetition in the digital music distribution industry.

Keywords: competitive advantage • competitive strategy • organizational ecology • emerging industries • industry dynamics • information technology • organization and management theory • organizational form • technological change • technology strategy

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1. Introduction

Experience tells us that every now and then a new and dramatically different approach to competing comes along. The strategy field prizes this event, often documenting in cases and research the advantages that result from great strategic innovations. What makes strategic innovations great is not just that they prevail but that they do so by introducing an entirely new approach to competing, as seen, for example, in the rise of mass retailers such as Walmart, app-based ride-hailing services such as Uber, cloud computing giants such as Amazon, and the list goes on. Such strategic innovations change the game being played in a given industry, so that to perform well, organizations must play by the new rules of the new game. By and large, scholarship portrays such strategic innovations as order-of-magnitude improvements on what came before, implying that their ascendance is an inevitable consequence of economic progress.

Yet even accepting that progress is driven by performance improvement, strategic innovations can take many forms, so the specific form taken by new strategies is an interesting problem worth researching. For instance, wireless coordination of riders and drivers may be inevitable, but the particular approach taken by Uber need not be. Similarly, social network platforms can take many forms, and currently, we see different approaches in the various social media organizations now vying for prominence in the world economy. Likewise, it seems clear that information technology is transforming the financial services industry, but far less clear are which specific "fintech" business models will prevail. My purpose in this paper is to argue that great strategies emerge from a "metacompetition" among alternative approaches to competing.

My argument rests on the idea that a given approach to competing is based on a *logic of competition*, defined as "a system of principles in a given context that determines who can compete, how they compete, on what criteria they succeed or fail, and what are the consequences of success or failure" (Barnett 2008, p. 14). Logics of competition are a type of institutional logic—one where all four of these dimensions are specified. As institutional logics, logics of competition may involve both material practices and symbolic constructions, and they may include both formalized and informal elements (Friedland and Alford 1991, Thornton and Ocasio 1999). What is important is that these underlying mechanisms, operating as a system, shape the nature of competition in a given setting. Seen in this light, strategic innovations are notable not only because they improve performance but also because they introduce a new logic of competition, and so they change any or all of these fundamental aspects: who can compete, how rivals compete, on what criteria rivals are evaluated, and the payoffs from winning and losing.

Explicitly studying logics of competition is important for at least two reasons. First, doing so helps us to identify when multiple logics of competition are in contention within the same industry. When this happens, the question of why some organizations prevail may have less to do with how well individual organizations compete and more to do with the larger metacompetition among contending logics. For instance, if a particular certification system in ecotourism is

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selected over others, then the organizations that prevail will be those conforming to the winning certification method. More broadly, one can see many instances of metacompetition in the world around us. Metacompetitions between platforms determine the fates of particular application developers, metacompetitions between performance criteria determine professional status, metacompetitions between alternative technological standards determine the fates of those who adopt (or reject) those standards, and metacompetitions between beliefs determine the criteria we use to evaluate whether an organization is "good." In each of these situations, an organization could be strong as a competitor but end up losing in the metacompetition over which criteria matter.

A second reason for studying logics of competition is so that we can understand metacompetition as an intentional strategy. Often leaders of organizations attempt to shape the rules of the game—to influence who can compete, how they can compete, on what criteria they are evaluated, and what are the payoffs associated with winning and losing. Lacking a systematic theory of metacompetition, most studies ignore these attempts outright or at most delve into particular case examples (Brandenburger and Nalebuff 1995). As a result, we are likely understating the importance of metacompetition. For instance, mergers and acquisitions (M&As) among organizations occur frequently, and typically strategy research considers them in terms of their synergy or efficiency implications. Yet often these events are attempts by organizations to eliminate competing logics of competition, as we have seen in the banking and information technology industries (Barnett 2008). Seen as a technique for engaging in metacompetition, M&A activity takes on theoretical significance beyond the value-maximization or efficiency interpretations typical in the strategic management field.

In this paper, I propose an ecological model of metacompetition and estimate the model using data on the digital music distribution industry. We all know about the dramatic changes taking place in the music distribution business in the wake of modern information technology. Often observers describe these changes using the term "disruption," which would probably be correct. But that description is theoretically underspecified. A more thorough treatment of this example looks for how recent changes in technology and law have allowed for the emergence of distinct logics of competition in that industry: free music sharing, commercial music downloading, and commercial streaming music subscription. The changes unfolding in the music distribution industry today involve a metacompetition among these very different approaches to competing, and the outcome of this metacompetition will determine, in the end, who can compete, how they compete, on what criteria they win or lose, and the payoffs to success and failure.

2. An Ecological Model of Metacompetition

At times we see the appearance of new and different approaches to competing—that is, new strategies—within a given industry. Broadly, social scientists trace the emergence of new strategies to various sources, ranging from social structural and political forces (Padgett and Powell 2012), to technological developments (Tushman and Anderson 1986), to the evolution of market structures (Carroll et al. 2002). The range of new strategies in any given context is understood to be limited not only by what is technically possible (Nelson and Winter 1982) but also by what is understood in our shared cognitive conceptions of strategy (Porac et al. 1995). Those cognitive limitations constrain both the search for new strategies by producers (Gavetti and Rivkin 2007), and the acceptance of new strategies by audiences (Hannan et al. 2007).

Once a set of possible strategies exists in a given industry, our theories typically play out how some strategies come to prevail over others according to one or another logic. Neoclassical economists typically argue that strategies will prevail to the extent that they make use of management practices that generate greater economic performance (Bloom and Van Reenen 2010). By contrast, economic sociologists argue that competitive advantage is enjoyed by organizations in favorable network positions (Stark and Vedres 2012) or by organizations with higher social status (Podolny 2005). Researchers emphasizing technological factors argue that advantage goes to those bringing "disruptive" innovations to market (Bower and Christensen 1995). But regardless of perspective, such research shares in common the view that some strategies will prevail over others because of their performance according to a given logic.

But the logic governing competition in an industry is itself a key question that is decided by a higher-level competition. A study might ask why some banks outperform other banks, but in so doing, it begs the question of who can call themselves a bank and thereby be allowed to play in the competition. Or one might study competition among universities yet take as a given the criteria on which we rank universities (teaching, research, job placements, etc.). Put generally, competition among organizations takes place at two levels. At the lowest level, we typically observe organizations trying to perform well in any given industry according to some logic. Yet the existence of such competitions presumes a higher-level *metacompetition* among the alternative games that could be played.

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2.1. Indirect Metacompetition

When different strategies based on different logics are possible within an industry, questions of legitimacy naturally arise. New logics of competition may be regarded as inappropriate, especially by those with an interest in preserving the status quo. For instance, while both mass retailing and app-based ride sharing are growing worldwide at the expense of more traditional strategies in their industries, they are at the same time controversial and so are the subject of considerable debate. In this way, when strategies are in metacompetition, contention is likely among social actors attempting to influence which strategies will come to be regarded as legitimate. This contention typically involves various tactics, from legal maneuvering to attempts to influence public opinion. But all such actions typically take place surrounded by public discourse among social actors: firms, government entities, public interest organizations, social movement organizations, nongovernmental organizations such as advocacy groups, certification organizations, and the like. Leaders in these organizations attempt to mobilize support for a given approach to competing and against alternative approaches.

As argued by Snow et al. (1986) with reference to social movements, such advocacy can be understood as "framing work" (Goffman 1974)—attempts by organizations to strategically portray and interpret certain actions as appropriate and others as inappropriate. So when the leadership of electric vehicle manufacturer Tesla opposes the unionization of their workforce, they do so by framing themselves as a high-technology firm (rather than a conventional automobile manufacturer). So framed, their nonunion wages are portrayed as being offset by valuable stock options (DeBord 2017), and their opposition to public disclosure of working conditions is framed as the confidentiality needed in a high-tech firm (Hansen 2017). Through such narratives and counternarratives, organizations make legitimacy claims as they attempt to influence the metacompetition over which logics will prevail in a given context.

For strategies that lack legitimacy, public discourse represents the mobilization of social support necessary to increase the "carrying capacity" for such strategies—where carrying capacity is defined as the environment's potential to support organizations of a given strategy (Carroll and Hannan 2000). In this way, framing work and public discourse exemplify the "elaboration of rationalized myths" described by Meyer and Rowan (1977, p. 358) in their seminal paper, in which they argue that organizations making legitimacy claims will "maintain elaborate displays of confidence, satisfaction, and good faith . . . ." When alternative strategies are in contention in a given industry, controversial strategies lacking legitimacy are at risk of failing in metacompetition with other, more legitimate strategies. Contentious public discourse in support of controversial strategies serves as a tactic to improve their viability.

The Discourse Hypothesis. *The more discourse supporting the legitimacy of a controversial strategy, the higher the carrying capacity for organizations pursuing that strategy.*

Assuming that greater carrying capacity manifests as greater prospects for organizational growth, we can test the discourse hypothesis using a partial adjustment model:

$$\Delta S_{j(t\to t+1)} = r(S^*_{jt} - S_{jt}),$$

where $\Delta S_{j(t\to t+1)}$ is the observed change in size of an organization following strategy j from time t to time $t+1$, S^*_{jt} is the predicted steady-state size of an organization following strategy j as a function of organizational and environmental conditions as of time t, S_{jt} is the observed size of the organization following strategy j at time t, and r is the rate of adjustment.

The carrying capacity of the environment for organizations following strategy j enters into this model when we specify S^*_{jt}:

$$S^*_{jt} = f(K_{jt}),$$

where K_{jt} is the carrying capacity for organizations following strategy j at time t, specified as a function of observable organizational and environmental characteristics (including contentious discourse involved in metacompetition). Note that although the focus of my argument has been on metacompetition through discourse, other sociopolitical tactics of various sorts often play a role in metacompetition—as when laws, tariffs, regulations, and political suppression determine which strategies are allowed in a given industry. Depending on the context, one might choose to model K_{jt} as a function of such tactics.

2.2. Direct Metacompetition

Once a set of strategies exists in an industry, metacompetition also takes place directly—with different organizations competing in the market but according to different logics. Such battles are metacompetitions because winning depends on whether a firm is playing the right game, not on whether a firm plays its game well. For example, recent changes in information technology (IT) have led to the rise of so-called cloud service providers, companies that offer other companies leased access to "off-premises" computing resources that take the place of systems that traditionally needed to reside "on premises." These companies compete on the basis of scale and utilization economies unheard of in traditional "enterprise IT firms," which offer on-premises systems (Barnett et al. 2016). Judged by the competitive criteria of the cloud service providers,

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even the very best of the traditional enterprise IT firms cannot begin to compete on the basis of scale and utilization. The poor performance of these firms is a consequence of losing in metacompetition, as they find themselves playing the wrong game.

Direct metacompetition enters into the model by including how firms following each strategy affect the growth rates of firms following the other strategies:

$$S^*_{jt} = f(K_{jt} - \mathbf{a}'_{jk}\mathbf{N}_{kt}),$$

where $\mathbf{N}_{kt}$ is a matrix including the number of rivals following each of various strategies k in a market at each time t, and the vector $\mathbf{a}_{jk}$ is the so-called community matrix of competition coefficients (May 1973). These coefficients show the effects of each strategy k on the growth rates of firms following strategy j.

Because it includes the full community matrix, the model allows for various forms of interdependence between strategies. For instance, if the different logics of competition migrate to different market niches, and thereby are differentiated, then the community matrix will reveal low levels of competition between the different strategies—implying that they may coexist in steady state. Coexistence can also occur if all strategies compete with one another, as long as the weaker strategies first established a large enough initial market presence (Carroll and Harrison 1994). By contrast, if a new strategy is based on a logic that supersedes the logics of the existing strategies, then the new strategy will feed on the established base of the existing players in a predator–prey relationship. This outcome leads to the rapid rise of the new strategy at the expense of the previous ones.

The model can be estimated by specifying K_{jt} as a function of observables and reconfiguring the terms to be linear in the parameters, and by adding an error term (Tuma and Hannan 1984).[1] In this study, K_{jt} is estimated as a continuous function of organizational age (τ), a piecewise function of calendar year (Y_i), and a continuous function of the level of discourse surrounding strategy j at time t (D_{jt}). The model is further simplified by assuming that the independent variables will vary little from panel to panel over time—as is the case in this study (see Barnett et al. 1994). Respecifying size in the natural logarithm, the form of the model becomes the Gibrat process typically used in studies of organizational growth (Luttmer 2010):

$$\ln(S_{jt1})/\ln(S_{jt0}) = \beta_1 \ln(S_{jt0}) + \beta_2 \tau_{jt0} + Y_i + \beta_3 D_{jt0} + \boldsymbol{\alpha}'_{jk}\mathbf{N}_{kt} + \varepsilon,$$

where ε is the error term.

If the discourse hypothesis is correct, we can expect to find $\beta_3 > 0$, where discourse in support of strategy j increases the growth rates of organizations following this strategy. And the estimates of the community matrix $\boldsymbol{\alpha}_{jk}$ will allow us to see evidence of direct metacompetition among strategies. Before turning to the study context, it is worth noting that ecological models of organizations typically are descriptive of the patterns unfolding in real-world data over time. Causal identification is rarely a strength in such studies. Rather, what we observe in organizational populations can show us whether history has unfolded in particular industries according to a pattern consistent with theory, but a more quasi-experimental design would be required to claim causal identification.

3. Metacompetition in Online Music Distribution

The transformation of the music distribution business into the digital era began with the invention of the MP3 standard in 1990.[2] Free music downloading occurred for the first time in 1993 on Compuserv's "music forum," resulting in the first illegal downloading piracy lawsuit. In 1995, the Copyright Act was revised so that mechanical licenses would apply to digital music delivery. In that same year, RealAudio launched the first streaming audio service. In May 1999, Napster launched its service that allowed free peer-to-peer file sharing, and in December of that year, the Recording Industry Association of America (RIAA) sued Napster. More suits followed, and in July 2001, Napster shut down following a court order to remove all copyrighted material from its service. In October of 2001, the RIAA sued free music downloading services Kazaa, Morpheus, and Grokster, and in that same month, Apple released the first iPod. In 2003, Apple then released the iTunes store, enabling pay-per-download digital music distribution on Apple devices. Also in 2003, Roxio launched Napster 2.0, which offered a legal commercial subscription music streaming service.

Since 2003, three distinct approaches to digital music distribution coexisted in the industry: free music downloading services (nearly always ruled illegal when sued), commercial music downloading services, and commercial subscription music streaming services. For this study, I collected monthly data on all music downloading services. A team of research assistants scoured the "Internet Archive Wayback Machine,"[3] searching for any website that featured music downloading at any point in time since 1993, when the first web browsers were available. Sites were then categorized according to which of the three strategies they followed and were traced over time to record their date of last existence up through June 2013 (the end of the study period). Figures 1 and 2 show the historical frequencies of these strategies over time.

I then merged these data with the Alexa Internet page rank data on a monthly basis, which were available from August 2007 through 2013, to create a monthly organizational size measure. Over that

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Figure 1. Website Foundings by Type (Through June 2013)

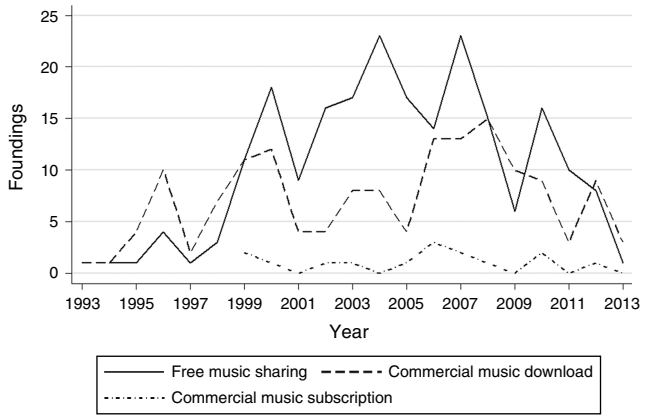
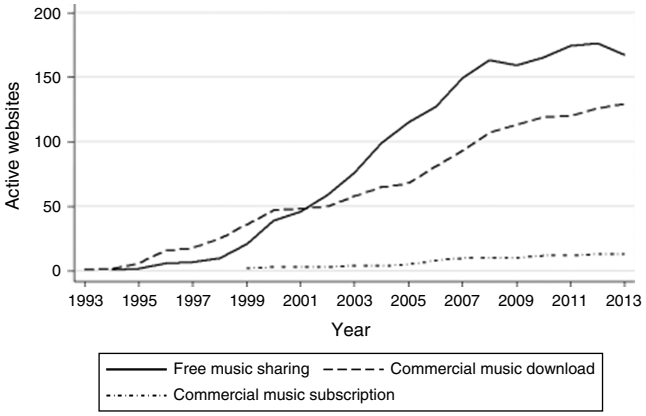


Figure 2. Website Density by Type (Through June 2013)



period, Alexa ranked websites according to the frequency of visits and page views of websites by Internet users who had an Alexa toolbar on their browser.[4] Ranks vary inversely to the size of the organization are thus used as the size measure in this study. Although ranks are an ordinal measure, the very large number of websites being ranked essentially leads the ranks to be an interval measure when it comes to size. That is, a very low rank implies an extremely large service, with a very long tail as the sizes of services fall, and so the ranks become extremely high. This skewed distribution is typical in organizational size distributions and is well modelled using the log form of my model. That said, one must keep in mind that negative coefficients in my model estimates mean a variable is increasing the organizational growth rate, since a fall in rank is an increase in size.

Since the 1990s, the digital music distribution industry has been the center of tremendous controversy. While legal action continues to shut down illegal music downloading sites, they continue to appear with even greater frequency. And while industry leaders and many musicians refer to free downloading as piracy, others in society frame the issue differently, seeing the major music labels as seeking undue returns (Shaw 2012). Others question whether licensing regimes could be created that would allow for easier access to digital music. Meanwhile, many consumers, and especially young people, continue to download music through YouTube or free music downloading sites. So it is that as these three strategies have developed in the digital music downloading industry, a contentious debate has raged over how digital music should be delivered.

It is especially interesting to contrast the logic of competition for commercial downloading websites versus commercial subscription websites. Both require that the organization gain access to the rights to distribute music from the major labels, but the two logics differ greatly. Music downloading websites gain by receiving payments on a per-download basis, and they enjoy an increasing competitive advantage as users expand their music libraries—especially if the downloads are in a proprietary format, thus locking in the user to the downloading service. By contrast, the subscription services typically give complete access to a broad music library—an attractive alternative for a user locked in to a downloading service. That user can switch to the downloading service with no loss in selection. For this reason, many firms offering pay-per-download service treated the appearance of subscription services as a competitive threat. Perhaps the most outspoken critic of subscription was Steve Jobs, who described these services in a 2003 Apple press release:

> These services treat you like a criminal. And they are subscription based and we think subscriptions are the wrong path. One of the reasons we think this is because people bought their music for as long as we can remember. We bought our music on LPs, we bought our music on cassettes, we bought our music on CDs. And we think people want to buy their music on the internet by buying downloads just like they bought LPs, just like they bought cassettes, just like they bought CDs. They're used to buying their music, and they're used to getting a broad set of rights with it. When you own your music it never goes away. When you own your music you have a broad set of personal use rights—you can listen to it however you want. People have told us over and over and over again, they don't want to rent their music.[5]

Of course, Jobs and Apple had a great deal on the line. At the time of this release, Apple's pay-per-download service was just taking off, and so was their users' installed base of proprietary downloaded music. The early subscription services did not perform well, possibly because of limited bandwidth and (ironically) because the iPhone had not yet been invented. In any case, as time passed, the resurgence of subscription services and the success of companies such as Pandora and Spotify would ultimately force Apple to offer such a service as well.

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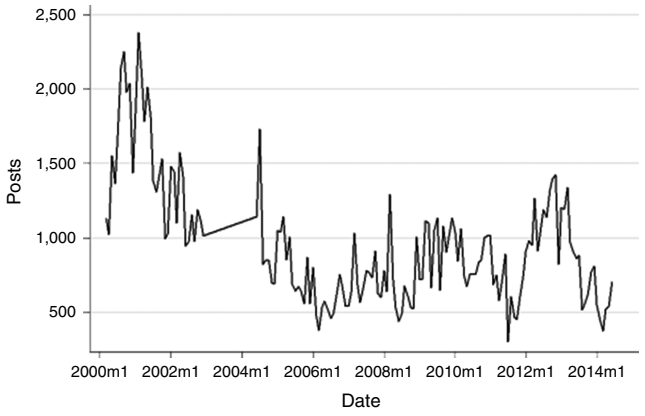
Figure 3. Contentious Discourse: Number of Pho Posts



What is most interesting about this evolution in light of my theory is to see the effects of public discourse and framing work on the fates of these companies. Jobs's comments are framing work of just one company's leader—albeit a major figure. To capture the ebb and flow of that debate more generally, I counted the number of entries (by month) in the digital music forum Pho.[6] Founded and maintained by Jim Griffin, a digital music enthusiast, during the study period Pho allowed for users to exchange ideas in discussion strings sent and received through email. The forum collected a wide variety of views, and since membership in the forum required invitation, typically the entries revealed technical sophistication and a complex understanding of the issues involved in digital licensing. During periods when big issues in the debate over digital music distribution erupted, Pho saw a surge in activity. For this reason, I allowed a count of the number of entries in Pho per month to serve as my operationalization of D, the level of discourse surrounding metacompetition. Figure 3 shows these surges in the number of posts over time.

3.1. Model Estimation and Results

Since the Alexa ranking data are available starting in 2007, to estimate the growth model, I created a monthly pooled cross-section time-series data set including all music downloading websites that were found to have existed at any time over the period 2007–2013. Every organization's strategy and size were measured on a monthly basis, resulting in 17,724 observations for the 343 organizations. The model was estimated using the feasible generalized least squares (GLS) regression available in Stata, allowing for heteroscedasticity and first-order autocorrelation in the error term.

Estimates of the model are shown in Table 1, and two effects are immediately worthy of note. First, looking at the bottom of the page for Models 4 and 5, the effects of discourse are large and statistically significantly related to the growth of free websites, consistent with the discourse hypothesis. Second, the growth differences across strategies can be seen in the effects of "pay downloading website" and "subscription downloading website," with the free downloading website as the left-out category. Clearly, the subscription strategy has the highest growth rate and, in this sense, appears to be rising as the dominant logic in the industry during the period. What is especially interesting is that the magnitude of this advantage becomes especially clear in Models 4 and 5, which control for the discourse advantage enjoyed by free music websites. The first three models, which failed to control for the discourse effect, showed the advantage of the subscription strategy to be small. But with the beneficial effect of discourse on the free sites controlled, the subscription strategy turns out to enjoy considerably higher growth than the other strategies.

Turning now to the community matrix, the only competitive effects found in the industry come from the subscription services. Those services reduce the growth rates of both free downloading and pay downloading websites. Meanwhile, the pay-per-download websites actually increase the growth rates of the subscription services. So the subscription services enjoy a predator–prey relationship with the pay-per-download websites. Consistent with the relationship between the logics of these strategies, the subscription services appear to be rapidly attracting the user base of the pay-per-download sites, essentially superseding the logic of the pay-per-download strategy with their own. Finally, it is also noteworthy that free and pay-per-download websites appeared to increase each other's growth rates. This may be a real effect, or it may spuriously reflect increases in size over time that the model fails to capture in the piecewise year effects.

4. Discussion

The strategy field celebrates individual examples of greatness. Similar to the public at large, scholars in the strategy field trumpet the accomplishments of our most successful organizations, pointing to them as examples to be emulated by others and arguing for ways that others could join their ranks. My arguments should raise a concern about this way of understanding exceptional performance. When exceptional performance occurs, I argue that what develops is not a great company but a great strategy. And for a strategy to be called great, it must prevail in a higher-level metacompetition with other strategies. Specifically, alternative strategies are based on alternative logics, and the battle among such logics is first and foremost a contentious discourse—with narratives and counternarratives attempting to establish the legitimacy of one logic and the illegitimacy of others. Who wins and who loses in metacompetition is determined, in part, by who prevails in this contentious social discourse.

Table 1. GLS Estimates of the Monthly Proportionate Change in Rank, Music Websites 2007–2013

	Model 1	Model 2	Model 3	Model 4	Model 5
ln(*Website rank*, $t-1$)	0.9983**	0.9983**	0.9983**	0.9984**	0.9984**
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Organizational age	0.0001**	0.0001**	0.0001**	0.0001**	0.0001**
	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00002)
Pay downloading website	−0.0013	−0.0013	−0.0013	0.0235	0.0169
	(0.0021)	(0.0021)	(0.0021)	(0.0637)	(0.0626)
Subscription downloading website	−0.0107**	−0.0106**	−0.0106**	−0.2177	−0.2534*
	(0.0046)	(0.0047)	(0.0047)	(0.1455)	(0.1405)
No. of free websites		−0.0010	−0.0014**		
		(0.0006)	(0.0006)		
No. of free websites × *Free downloading website*				−0.0016**	−0.0015**
				(0.0007)	(0.0007)
No. of free websites × *Pay downloading website*				−0.0015**	−0.0013*
				(0.0007)	(0.0007)
No. of free websites × *Subscription downloading website*				−0.0004	0.00006
				(0.0015)	(0.0014)
No. of pay websites		−0.0045**	−0.0044**		
		(0.0006)	(0.0006)		
No. of pay websites × *Free downloading website*				−0.0045**	−0.0045**
				(0.0007)	(0.0007)
No. of pay websites × *Pay downloading website*				−0.0049**	−0.0049**
				(0.0007)	(0.0007)
No. of pay websites × *Subscription downloading website*				−0.0024*	−0.0027**
				(0.0014)	(0.0013)
No. of subscription websites		0.0080**	0.0084**		
		(0.0036)	(0.0036)		
No. of subscription websites × *Free downloading website*				0.0102**	0.0101**
				(0.0049)	(0.0049)
No. of subscription websites × *Pay downloading website*				0.0096*	0.0094*
				(0.0048)	(0.0048)
No. of subscription websites × *Subscription downloading website*				−0.0096	−0.0099
				(0.0141)	(0.0141)
No of. contending posts/1,000			−0.0128		
			(0.0065)		
No. of contending posts/1,000 × *Free downloading website*				−0.0180**	−0.0165**
				(0.0085)	(0.0083)
No. of contending posts/1,000 × *Pay downloading website*				−0.0050	
				(0.0087)	
No. of contending posts/1,000 × *Subscription downloading website*				−0.0213	
				(0.0239)	
Wald χ^2 (df)	1.25e+07 (10)	1.25e+07 (13)	1.25e+07 (14)	1.24e+07 (22)	1.24e+07 (20)

Notes. Based on 17,724 monthly observations of 343 organizations. All models include year fixed effects. Size measured as Alexa rank, so negative effects mean a variable *increases* the growth rate.

**$p < 0.05$; *$p < 0.10$.

Looking at the digital music downloading industry, discourse turned out to be very important to the growth of free downloading services—the most controversial services in the industry since they are repeatedly closed down as illegal. Yet they continue to be created and to grow, despite the best efforts of leaders through the industry and law enforcement. The discourse effect helps to explain this persistence. Of course, we cannot conclude that the discourse effect is "causal," since this study is descriptive. But we can conclude that discourse reflects a base of social support for these services that lends to their continued growth in the face of legal suppression.

Also interesting in these results is the predator–prey relationship between subscription and pay per download. The logic of music subscription, by its nature, renders irrelevant the competitive advantage of pay-per-download services. By moving to subscription, users instantly replicate the music libraries that kept them locked in to the pay-per-download services. More generally, this result raises an interesting view on the question, "where do great strategies come from?" Perhaps

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great strategies come from logics that feed on those strategies that came before? If so, then the widespread discussions we hear of "disruptive" strategies may, in fact, be about logics of competition that supersede the status quo and thereby trigger predator–prey competition.

To conclude, we need more systematic research on the success and failure of strategies defined in terms of their underlying logics of competition. When competition occurs, we need to ask: Who can compete? How can they compete? What are the criteria that determine success and failure? And what are the payoffs to success? Asking these questions will direct our attention to metacompetition—as it occurs both indirectly through social discourse about the legitimacy of alternative logics and directly between these logics as they vie for prominence in an ecology of strategies. The model proposed and estimated in this study may serve as a step toward this more systematic approach to the study of metacompetition.

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Endnotes

[1] Solving for the rate of adjustment can be informative if the different strategies have different rates of adjustment, as seen in Barnett et al. (1994). For simplicity, in this study I assume that the rate of adjustment is constant across strategies and so do not factor this rate out of the estimated parameters.

[2] This section draws heavily on Krasilovsky and Shemel (2003) and the information inTaintor (2004).

[3] See https://archive.org/web/, accessed October 29, 2017.

[4] See http://chnm.gmu.edu/digitalhistory/links/cached/chapter5/link5.25b.AlexaTrafficRankings.html, accessed October 29, 2017.

[5] Quoted in Schifrin and Barnett (2016, p. 3)

[6] See http://www.onehouse.com/bi0.htm, accessed October 29, 2017.

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