CHAPTER 27.

GENRE AND GENERIC LABOR

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Those of us who have worked for a while in what Russell calls writing, activity, and genre research (WAGR; see Russell 2009) tend to draw a certain distinction between genres. Schryer and Spoel (2005) summarize this distinction quite well:

> Regulated resources refer to knowledge, skills, and language behaviors that are recognized and required by a field or profession. Regularized resources, on the other hand, refer to strategies that emerge from practice situations and are more tacit (p. 250).

WAGR scholars use different terms for shades of this distinction, such as official/unofficial (Spinuzzi, 2003; cf. Bakhtin, 1981), authoritative/internally persuasive (Dias et al., 1999), stability/change (Berkenkotter & Huckin, 1995; Devitt, 1991; Starke-Meyerring, 2010), and explicit/tacit (Schryer & Spoel, 2005; see Table 2). But in all these cases, scholars have tried to distinguish between (a) genres that are more formally or authoritatively constrained by the activity and (b) genres that represent more grounded, less authoritative, and frequently more individual or local solutions. That is, we have focused on *authorial discretion:* the degree to which the author has the freedom to exercise her or his own voice (in the Bakhtinian sense, entailing beliefs, logics, traditions, and ideologies; see Bakhtin, 1981).

This distinction turns out to be quite useful for understanding genre development, particularly in genre assemblages (e.g., genre sets, systems, ecologies, repertoires; see Spinuzzi, 2004). As an activity develops over time, actors within that activity tend to develop unofficial genres—or import genres from other activities—some of which over time become more integrated into the activity and more officially sanctioned. That is, some of these more unofficial, regularized resources develop into more official, regularized resources. Examples include letters that evolved into the genre of the experimental article (Bazerman, 1988) and prose that became tables and forms (Yates, 1989). Over time, some genres develop to become more regulated. Indeed, some become templated to a degree

that authorial voice is exercised almost solely in selecting parts to reuse (Swarts, 2009). Such genres have become more prevalent with the increase in automated genres such as content management systems (e.g., Clark, 2008; Hart-Davidson et al., 2008).

As Schryer, Lingard, and Spafford (2007) argue, genre includes not only replicable structures but also "regularized improvisations" (p. 26). They argue that "Genres are constellations of regulated and regularized improvisational strategies triggered by the interaction between individual socialization, or habitus, and an organization or field" (p. 31; cf. Gygi & Zachry, 2010; Teston, 2009; Winsor, 2007). Regulated genres explicitly enforce an orientation; regularized genres tend to implicitly support it (although they can also introduce very different orientations, often inherited from other activities from which they are drawn).

This official/unofficial distinction is quite useful for understanding how genres develop. However, I have begun to wonder whether it adequately analyzes the relationships among genres or genre development. I especially began to question the distinction after conducting a study of rapid genre development in a highly contingent and unstable activity, *search engine optimization* (SEO; see Spinuzzi, 2010).

SEO involves bringing more or better quality traffic to a website via search engines. Essentially, SEO specialists identify search queries that potential customers might use to find a client's website, then improve the website's ranking in those queries so that the website shows up in the first few pages of search results. They use various techniques for achieving this goal, including defining the most advantageous queries for which to optimize results; restructuring the client's website itself; suggesting content that clients might add to their websites (such as press releases, videos, and PDFs); and building links to the website. They also monitor traffic to sites via these queries. Site rankings are constantly in flux due to frequent changes in search algorithms, competition from other websites, and news stories that affect search rankings. Because of this constant flux, and because new SEO tools are constantly in development, specialists are continually changing and improving their tools and practices.

The most visible product of their work is their customized monthly report to the client; although SEO specialists do not see themselves as writers, each SEO specialist writes 10-12 complex 20-page monthly reports in the first ten business days of each month. The reports are structurally and rhetorically complex.

In my three-month field study of Semoptco, I interviewed the director of product services twice; observed three of the six SEO specialists and one of the three account managers twice each; conducted one pre-observational interview

and two post-observational interviews for each observed participant; and collected artifacts from each observed participant's workspace, including photos, printed collateral, and electronic documents. (See methodological details in Spinuzzi, 2010.) These methods allowed me to observe, examine, and interview participants about various genres in use at Semoptco.

Let's examine four such genres from that study, summarized below:

> **Competitors table.** One of the SEO specialists, Luis, was faced with the problem of customizing a standard report to address the particular contingencies of his client. The client had identified competitors against which it wanted its SEO metrics compared. But Luis determined that they should actually compare themselves against others who were more direct competitors in the SEO space. To make the case, he took the initiative of developing a comparison table, which had no direct precedent. Luis's table could serve as such a precedent, since his current report will serve as a template for future reports.

> **Social bookmarks.** On the other hand, Seoptco's SEO specialists all used social bookmarking services such as delicious.com or StumbleUpon to create bookmarks pointing to their clients' sites. Interestingly, specialists could decide which bookmarking service(s) they wanted to use, how to write and tag bookmark descriptions, and they could even individually try out various tools that post bookmarks to several services at once. But that freedom was waning: Carl, one of the specialists, noted excitedly that Semoptco developers were developing such a tool for all SEO specialists at Semoptco. "The interns will love this!" he exclaimed. After all, social bookmarking is relatively low-skill work, so specialists farmed it out to interns whenever possible.

> **Action items in monthly reports.** The SEO specialists had to rapidly pull together detailed monthly reports for each client. Parts of the report, such as the Action Items section, were based on the judgment of the individual specialist handling the account (although they were also vetted by the account manager before being sent to the customer). These Action Items set the course for future SEO action, and played a large

part in retaining customer business. They followed a regular format and contained specific types of information, but only a trained SEO specialist could put them together.

"Report cards." But the monthly reports also contained sections that weren't written by human beings at all. Perhaps the most critical section was the "report card," a table that provided a measurable, verifiable, reliable summary of how well SEO was performing relative to targets set during the launch process. These "report cards" were essentially database tables, generated by an internal system without any human intervention.

As these summaries show, we can categorize these texts using the official/unofficial distinction.

Table 1. Examples of official and unofficial genres

Unofficial (regularized, tacit)	Competitors table	Social bookmarks
Official (regulated, explicit)	Action Items in Semoptco's monthly reports	"Report cards"

All of these texts can be considered genres in the tradition of WAGR: they are types of texts, responses to recurrent situations, and they are recognizable by their readers and writers. Yet some of these genres are obviously different from others.

Unofficial genres. For instance, in the top row of Table 1, the competitors table and social bookmarks are "unofficial" genres, genres that may have become somewhat regularized but are still highly idiosyncratic: selected, developed and applied by individuals, not centrally mandated, and consequently both flexible and subject to drift. These genres do not (initially, at least) speak for the organization; they operate in the spaces between the official requirements of the organization. For instance, SEO specialists could choose which social bookmarking tools they personally wanted to use—or they could choose not to use them at all. Similarly, Luis personally developed the table to compare different competitors' performances; no table quite like this had appeared in a Semoptco report before, although the notion of comparing things with a table was of course familiar to all the SEO specialists.

Official genres. On the other hand, in the bottom row of Table 1, the Action Items section and the "report cards" are "official" genres, genres that are

not just regularized but *regulated* (Schryer & Spoel, 2005). They represent the organization as a whole, and outside entities understand them this way. So their format is centrally mandated and largely fixed, not idiosyncratic; their composition and use must meet certain guidelines; and they are officially required by the organization. They officially represent an authoritative voice, an organizational voice (cf. Coney & Chatfield, 1996). Both genres are taken to represent Semoptco's official stance, not just the thoughts of an individual analyst.

This continuum between official and unofficial genres provides what I call "a dimension of stability" (Spinuzzi, 2010, p. 398). In WAGR, many have examined texts in terms of this continuum between the unofficial and official (or if you prefer, the regularized and the regulated). Yet as we examine the four examples above, we may perceive other groupings.

Specifically, notice that in the right column of Table 1, the social bookmarks and "report cards" are both *automated:* an operator runs a command or query, and a computer performs the actions. Tasks such as posting social bookmarks and summarizing keyword statistics are repetitive; they're complex enough that human beings tend to do them imperfectly; and they involve enough operations that it takes human beings a long time to perform them. Social bookmarks are unofficial, the "report card" is official, but both are formalized so that they can be offloaded to a machine.

On the other hand, in the left column of Table 1, the comparison table and the Action Items section both require a human being to create and use them; in their current configuration, they require too much operational discretion to automate. They require human judgment that can't be offloaded to a machine, judgment that is reliant on the individual who uses or composes them.

This second distinction—the continuum between automation and discretion, or in Manuel Castells' terminology, between generic labor and self-programmable labor—is quite different from the first. Whereas the official-unofficial distinction focuses on authorial discretion, this one focuses on *operational discretion:* the degree to which the author exercises discretion over the execution of processes. This second distinction has been underexplored in WAGR, although we see a bit of it in design-oriented work drawing from distributed cognition and related approaches (Freedman & Smart, 1997; Dias et al., 1999). Perhaps this distinction has been underexplored because automation has been a rather limited part of writing research until recently. Yes, we have automated texts, but they have seemed out of reach of most authors. Not long ago, end-user programming (Nardi, 1993) was relatively rare and work was harder for most people to automate. Now it is more common: more and more texts are automated or automatable, such as macros, templates, scripts, and HTML forms.

And we need to theorize such examples of automation in WAGR, as I fretted recently: "What does it mean for rhetorical genre theory that so many genres are becoming automated and customized for specific problems?" (Spinuzzi, 2010, p. 394). I argue that this second distinction can be productively discussed in terms of Castells' distinction of generic and self-programmable labor, which was developed to address such changes.

We might gloss these two distinctions, these two types of discretion, as being about authoritative *voice* and operational *choice.* Authorial discretion involves the freedom of actors to exercise their authoritative voice, bringing in beliefs, logics, traditions, and ideologies to operate in a given activity; low-freedom activities are monologic, while high-freedom activities are dialogic. Operational discretion involves the freedom of actors to exercise their operational choice, the extent of their discretion over task execution and problem-solving.

These two distinctions can certainly be related: for instance, someone who is given choices can choose to bring in different voices. Nevertheless, these distinctions are quite different, as I attempt to demonstrate in this chapter.

Below, I first explore the official/unofficial distinction in WAGR, particularly how it describes the black-boxing of authoritative voices. Next, I introduce Castells' distinction between generic and self-programmable labor, particularly how it describes the black-boxing of operational choices: procedures, decisions, judgments. I then apply the two distinctions to the examples above in order to discuss a two-dimensional analysis of genres and genre development. Finally, I conclude with a discussion of implications for WAGR, particularly for understanding how genres develop.

AUTHORITATIVE VOICE: THE OFFICIAL/ UNOFFICIAL DISTINCTION IN WAGR

As we've seen, the official/unofficial distinction (authorial discretion) has been widely used to discuss and differentiate genres in WAGR. Table 1 characterizes our four examples in these terms. Below, I discuss the analytical work that the official/unofficial distinction does for us, focusing on what it is, what it black-boxes or analytically encapsulates, and the dynamic that characterizes interrelations between unofficial and official genres.

DEFINITION AND CHARACTERISTICS

As we've seen, the official/unofficial distinction assumes an authority to which the genre is oriented. For instance, Luis' comparison table is an inno-

vation that is oriented to discovering the needs of his client. So is the "report card," which represents what Semoptco the organization officially knows about how its clients' keywords are performing.

The unofficial is just as oriented to authority as the official, but its relationship is characterized by difference and dialogue with that authority (see especially Dias et al., 1999, in which they discuss the cultural imperatives, epistemologies, and values that are embedded in genres; cf. Bazerman, 1994, p. 82; Miller, 1984). Table 2 lays out some of the differences between official and unofficial genres.

Table 2. Contrasting official and unofficial genres

Official	Unofficial	Source
Monologic (one logic or voice)	Dialogic (Many logics or voices)	Bakhtin, 1981
Authoritative (cultural imperative)	Internally persuasive (private intentions)	Dias et al., 1999
Regulated	Regularized	Schryer & Spoel, 2005; Schryer, Lindgard & Spafford, 2007
Stability/Regularity	Change/Flexibility	Berkenkotter & Huckin, 1995; Devitt, 1991; Spinuzzi, 2003; Starke-Meyerring, 2010
Explicit	Tacit	Schryer & Spoel, 2005

As the above suggests, this official/unofficial continuum is oriented toward voice. Below, I discuss how the continuum relates to black-boxing.

BLACK-BOXING: VOICE

As a genre develops, it tends to become more official, incorporating more regulated moves that instantiate the assumptions of the activity. The many unofficial voices are black-boxed (Latour, 1987) into a single official, authoritative voice.

For example, Bazerman shows that in its long development, the genre of the experimental article became more regulated, instantiating the developing assumptions of the scientific community (Bazerman, 1988). Yates similarly demonstrates that the business memo became more regulated over time in response to assumptions about its purpose and storage (Yates, 1989). And in the examples at the beginning of this chapter, Semoptco's action items and "report

cards" similarly became regulated, drawing on and yielding specific types of information tailored to specific activities, while omitting others. Sometimes this regulation occurs through genre conventions and oversight, as in Semoptco's action items and the experimental article; sometimes it occurs through restricted format, as in forms (see Yates for examples); and sometimes it occurs through automation (as in the "report cards").

These increasingly regulated moves ensure that authoritative assumptions are built into the genres that they regulate. That is, *official genres black-box voices/ dialogue.* The discussions, disagreements, logics, worldviews, and assumptions that are present in dialogue become "flattened" in official genres.

Dynamic

Of course, heavily regulated genres lose a considerable degree of flexibility. When genres in a given activity become more heavily regulated, people in the activity tend to develop unofficial, less regularized genres to reinject flexibility. For instance, in a previous study (2003), I described how conflicting official genres with different logics caused systemic disruptions. Individuals developed idiosyncratic genres to reinject flexibility into the system. Similarly, Luis' comparison table was an idiosyncratic response that helped him to address the particular needs of a particular client. Genres decay (Dias et al., 1999, p. 23); they change in response to "their users' sociocognitive needs" (Berkenkotter & Huckin, 1995, p. 4).

We can think of this dynamic in terms of *agency.* As unofficial genres become more widely used, they become more regularized, and eventually tend to be absorbed into official genres; the tacit expectations and moves become explicit. In the process, the unofficial genres, which were idiosyncratic and represented individuals' tools, become more generalized and more broadly applicable, more representative of the voice of the organization.

But the more regulated official genres are, they more inflexible they tend to become. To address unique, infrequent, or contradictory situations, people in the activity tend to supplement these official genres with new unofficial genres. See Figure 1.

As intimated earlier, however, the official/unofficial distinction is a fairly limited way to characterize genres and genre development. That's especially true as digital texts yield a broader range and broader circulation of genres.

Recall Table 1. We can see that the left column represents genres that involve considerable operational discretion during execution. The right column doesn't: in fact, both examples are automated functions, with really no operational discretion after the setup! Different parameters and different data yield different

texts—e.g., each month the contents of the "report card" will change—but unless someone reformulates it, the database query that yields the "report card" will not change. Given predictable inputs, it will yield predictable outputs.

Such automated genres have been around for a while, of course (Mirel, 1996), but have become far more prevalent recently due to various factors. These factors include the spread of digital tools and the digitization of texts (Andersen, 2008; Clark, 2007, 2008; Hart-Davidson et al., 2008); the rise of knowledge work, which mainly takes information as its work object (Spinuzzi, 2007); and end user programming, in which "non-programmers" learn the basics of automation (think in terms of spreadsheet functions, social networking filters, and customized searches; see Nardi, 1993). To properly account for them, we must examine another distinction of genre development.

OPERATIONAL CHOICE: THE DISTINCTION BETWEEN GENERIC AND SELF-PROGRAMMABLE LABOR

To account for the role of automation in genre development and its impact on operational discretion, I turn to sociologist Manuel Castells' distinction between generic and self-programmable labor. Castells is in some quarters a controversial figure, but his generic/self-programmable labor distinction shows potential in terms of more fully accounting for developments—particularly developments at which I have hinted in Table 1. In fact, this distinction leads us to recategorize those genres as shown in Table 3.(Again, this distinction is binary for the purposes of the discussion. In practice, distinctions become much more vexed.)

I see this discussion as speaking to an aspect of genre that has sometimes been lumped in with the official/unofficial distinction (Spinuzzi, 2003) or addressed in other ways (Dias et al., 1999; Freedman & Smart, 1997).

Definition and Characteristics

Castells describes the distinction between generic and self-programmable labor in various works, but summarizes it well in *Communication Power*:

> *Self-programmable labor* has the autonomous capacity to focus on the goal assigned to it in the process of production, find the relevant information, recombine it into knowledge, using the available knowledge stock, and apply it in the form of tasks oriented toward the goals of the process. The more our information systems are complex, and interactively connected
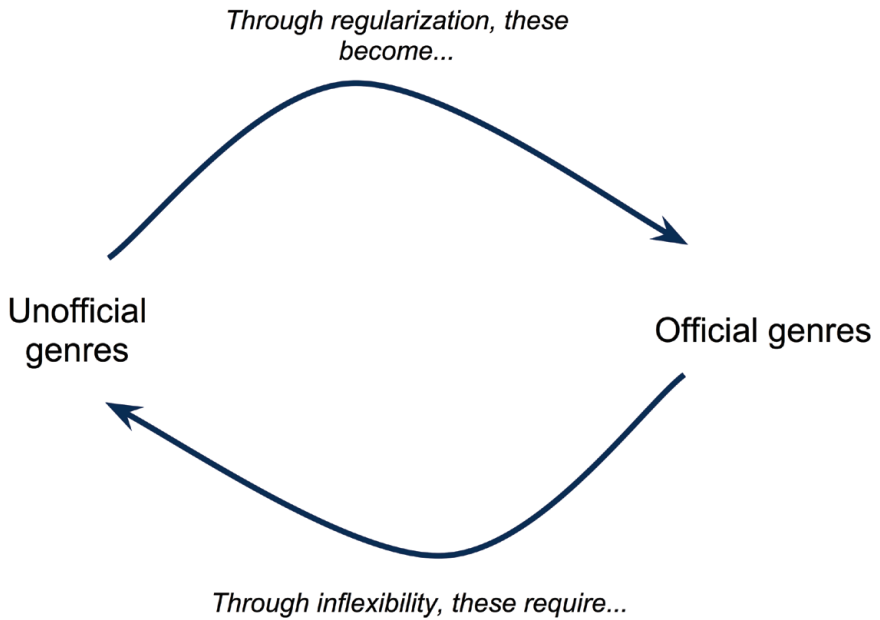
Through regularization, these become...

Through inflexibility, these require...

Unofficial genres

Official genres

Figure 1. The dynamic between official and unofficial genres.

> to databases and information sources via computer networks, the more what is required from labor is the capacity to search and recombine information. This demands appropriate education and training, not in terms of skills, but in terms of creative capacity, as well as in terms of the ability to co-evolve with changes in organization, in technology, and in knowledge. By contrast, tasks that are little valued, yet necessary, are assigned to *generic labor*, eventually replaced by machines, or shifted to lower-cost production sites, depending on a dynamic, cost-benefit analysis (Castells, 2009, p. 30).

The distinction is not necessarily[1] in terms of automation: generic labor can include any labor that involves predictably transforming defined inputs into defined outputs (Castells, 1998, p. 361). "Generic labor is assigned a given task, with no reprogramming capability, and it does not presuppose the embodiment of information and knowledge beyond the ability to receive and execute signals" (Castells, 1998, p. 361). Such tasks can easily be automated—or outsourced (just as some SEO specialists had given the task of social bookmarking to their interns). As Castells argues elsewhere,

> Generic labor is embodied in workers who do not have special skills, or special ability to acquire skills in the production process, other than those necessary to execute instructions from management. Generic labor can be replaced with machines, or by generic labor anywhere else in the world, and the precise mix between machines, on-site labor, and distant labor depends on *ad hoc* business calculation. (Castells, 2003, p. 94)

Castells emphatically doesn't endorse the rise of generic labor, and he believes that much labor that is treated as generic, such as the work of security guards, is really self-programmable, involving considerable discretion and autonomy (2003, p. 94; cf. Blomberg, Suchman & Trigg, 1994). However, he argues that understanding the split between generic and self-programmable labor is critical for understanding how work is done and value is created in the knowledge society. See Table 4.

As the table suggests, the distinction between generic and self-programmable labor is about operational discretion, i.e., discretion over the execution of

Table 3. Generic and self-programmable genres

Self-programmable (high operational discretion)	Generic (low operational discretion)
Competitors table	Social bookmarks
Action Items in Semoptco's monthly reports	"Report cards"

Table 4. Contrasting generic and self-programmable labor

Generic	Self-Programmable	Source
Low-skilled	Multiskilled	Castells, 1998, p. 361
Automated or low cost	Specialists	Castells, 2003, p. 94
Focus on tasks; receive and execute signals	Focus on goal; generate own tasks to achieve; autonomous	Castells, 2006, p. 10
Routine, repetitive tasks	Problem-solving, creating knowledge	Castells, 1996, p. 242
Predictably transform inputs to outputs (low discretion)	Coevolve (high discretion)	Castells, 1998, p. 361, 2003, pp. 90-91, 2009, p. 30
Formalizable (explicit)	Unformalizable (tacit)	Castells, 1996, p. 242
Low value	High value	Castells, 1996, p. 243
Terminal learning	Lifelong learning	Castells, 1998, p. 361, 2003, pp. 90-91

processes. To gloss, self-programmable labor involves a high level of operational discretion in order to solve problems. Generic labor involves a low level of operational discretion; in generic labor, the problems have been solved and routinized, leaving only the execution. Self-programmable labor involves responding to contingencies; generic labor doesn't.

The distinction is not the same as the official/unofficial distinction, but it shares one characteristic: the distinction between explicit and tacit. Self-programmable labor involves the operationally tacit, as self-programmable laborers work in contingency-laden environments to solve problems. Once problems are solved, they can make the problem-solving explicit in routines that involve defined inputs, outputs, and processes.

For instance, look at the top right corner of Table 3. At Semoptco, SEO specialists chose their own tools to automate the bookmarking that they had to do repeatedly. These tools were not shared or mandated, they were selected personally and idiosyncratically, but they still represented automated solutions—solutions that the SEO specialists had chosen to execute through automated processes. That is, they were authorally tacit, but operationally explicit.

Self-programmable labor involves generating a customized solution to a problem; generic labor involves using a formalized solution that was once generated and made repeatable. This distinction sheds some light on genre development in knowledge work environments.

Black-Boxing: Choice

Generic labor black-boxes discretion, processes, decisions, and judgments, formalizing and flattening them. Once someone solves a problem and formalizes it, that formalization can be made generic; the tacit operations become explicit instructions, either programmed or set out for generic laborers. It becomes a routine, one that takes defined inputs and generates defined outputs. Procedures and decisions are *programmed* into the genre (or to put it another way, artifacts crystallize intentions (Bødker, 1991; cf. Hutchins, 1995; Latour 1999).

That's not to say that even generic labor is completely inflexible. Jobs that are taken as generic have tacit, self-programmable aspects (Blomberg, Suchman, & Trigg, 1994); programmed texts have bugs and undefined cases (Adler, 2007; Suchman, 1987).

Dynamic

In the generic/self-programmable distinction, we see another dynamic: continual black-boxing as problems are solved and formalized, forming the base for

further problem-solving. This dynamic has arguably accelerated with the spread of automation.

For instance, in one study (Spinuzzi, 2003), I demonstrated that the Iowa DOT and related organizations began gathering traffic accident data by hand well before 1974, compiling them into basic descriptive statistics bound into annual reports. But once the Iowa DOT automated accident queries in 1974, more sophisticated queries became possible, and users began to submit more detailed, complex queries. This demand drove the Iowa DOT to develop further automated tools and to generate hybrid genres that crossed traditional genres with interface elements. My more recent study of Semoptco (2010) shows similar, but more rapid, automation (and genre) changes in the world of search engine optimization. In this dynamic, self-programmable labor becomes generic labor, which in turn becomes a base on which to layer more self-programmable labor. See Figure 2.

The dynamic is different from that of the official/unofficial distinction in Figure 1. That authorial dynamic was characterized by black-boxing authorial voice—making genres more regulated—and then reintroducing flexibility via additional, unofficial texts. But the dynamic in Figure 2 involves formalizing processes to make them solid enough to build other processes on top of them. Processes become explicit, stepwise, and predictable operations.
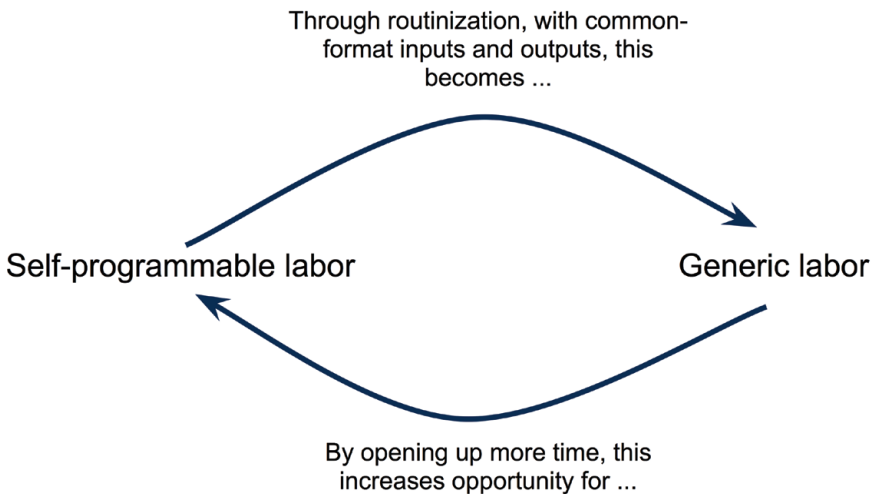

Figure 2. The dynamic between generic and self-programmable labor.

APPLYING THE TWO DISTINCTIONS: TOWARD A RICHER MODEL OF GENRE DEVELOPMENT

The two distinctions here can deepen and enrich each other. Here, let's apply to the example from the beginning.

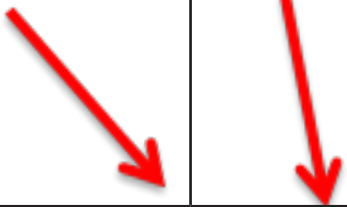**Table 5. Two dimensions of genre analysis**

	Self-programmable	Generic
Unofficial (regularized)	Competitors table	Social bookmarks
Official (regulated)	Action Items in Semoptco's monthly reports	"Report cards"

Here, we begin to see how the two distinctions might interact. Informating (Zuboff, 1988) involves not just applying knowledge, but also finding ways to offload the repetitive labor involved (cf. Nardi, 1993).

Using both distinctions, it could be possible to examine dynamics/ecology development in genre assemblages. And here, I'll stop apologizing for the binary distinctions I've been making. One could map these in Sullivan and Porter's (1997) postmodern mapping. But let's not. Instead, let's trace genre development in both distinctions simultaneously, observing their transits across the quadrants (Table 6).

Table 6. Genre development across quadrants

	Self-programmable	Generic
Unofficial (regularized)	Competitors table	Social bookmarks
Official (regulated)	Action Items in Semoptco's monthly reports	"Report cards"

As my initial descriptions of these genres suggested, some of the genres are undergoing development (signified by the arrows). That development tends to pull toward the bottom right quadrant, toward generic, official solutions.

For instance, Luis' comparison table was an idiosyncratic solution, but in this contingent, rapidly changing environment, idiosyncratic solutions become part of the archive of reports that SEO specialists use as templates for subsequent reports. If the table is successful, it becomes more stabilized and official, just as previous report elements had begun as innovations but quickly became part of the template.

Similarly, as Carl mentioned, Semoptco had seen how successful social bookmarking tools were, and its developers were working on a single official tool to replace the ones that specialists had selected ad hoc. This trend echoed the developers' previous work, which had automated the collection of most SEO statistics and the "report card." My second interview with Stan, the director of product services, confirmed a year later that Semoptco had continued to develop and seek automated tools to replace the ad hoc tools that SEO specialists had adopted.

In both cases, the trend is toward stabilizing existing genres along both dimensions: toward more official (regulated) forms and toward more automated generation. More unofficial and self-programmable genres become incorporated into official, generic genres, making them easier and faster to generate because participants need to exert less effort and engage in less decision-making. In turn, specialists use the time that has been freed up via regulation and automation to scout and develop additional self-programmable and official genres, genres that allow the participants to quickly react to new contingencies.

Table 6 suggests directions in which these genres might develop; a longitudinal study might produce a series of such tables, showing where genres emerge and how they are stabilized across the quadrants.

IMPLICATIONS

WAGR has focused on the development of genres, but has had trouble distinguishing authorial discretion from operational discretion. The latter distinction is increasingly important as we examine how people work automation (in a more informated, automated world) and outsourcing (in a more interlinked, more specialized world) into their activities.

Clearly, these are not the only two distinctions along which we can examine genre development. Yet these two distinctions seem particularly relevant as we

examine professional writing in increasingly automated environments. Further longitudinal studies might illuminate their relationship more clearly.

ACKNOWLEDGEMENTS

NOTE

1.   One might even object that in the above quote, Castells seems to draw a distinction between generic labor and automation. Castells is not terribly clear on the question. Here, I treat automation as a case of generic labor since it seems to fit the characteristics in Table 4.

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