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Exo-genres

Case Study of Oregon State's 'Stage-Gate' IT Review Process

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Technical and Professional Writing Program,
in fulfillment of the Master of Science Degree, submitted May 28, 2019

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1 ABSTRACT

This is a preliminary case study of *exogenres*, specifically *superimposed genre exosystems*, i.e., genre frameworks that are prescribed (genre exosystems) which are “laid upon” (superimposed on) writing scenes from outside oversight entity/ies.

This case study gathered and analyzed artifacts, data, and information from a relatively new exosystem in the Oregon state government: the IT project approval process called “Stage Gate,” a mandated regulatory reporting documentation process in effect in Oregon since 2015. The exogenres in Stage Gate were created out of a social action to superimpose IT governance and industry frameworks on state government agencies who build enterprise IT systems over \$1 million. Rhetorical genre analysis and network theory were used to define, analyze, and evaluate a small Stage Gate artifact collection.

Results reveal how genres in the superimposition can be treated as units of analysis for tracing collective cognition across organizational levels. Document-centric information architectures, however, are a poor method for tracing the genre and that a component content management system (CCMS) is a more precise, accurate, and adaptable approach to the more than 200 projects in the Stage Gate process.

2 PREFACE

Language is magic; it holds spells over us and shapes our thoughts. Simple evidence of this is that we can't ask questions that we don't have the words for, and we can't answer questions that we can't ask.¹

Written language is particularly magical because writing, like magic, has a profound sway over readers. Words, like spells, are able to capture and win over the hearts, minds, and actions of audiences. Whatever books we may have been exposed to growing up have been carved into the physical structures of our brains, in part forming the way we think. After all, there is no genetic basis for writing or reading. We are not born to read; we coopt parts of our brains to adopt language abilities. Language is reinvented in every human brain/mind based on their own experience and understanding. The only way to develop language is socially: to hear, speak, read, and write it.²

Readers, then, are synaptic lexicons, repositories of written enchantments. To have touched and perused the contents of someone's mind is to have sensed and been shown some of its magic. Writers, then, are molder of minds, word wizards. People who have found a particularly strong spells in stories, speeches, poems, books, and/or other documents sometimes live their lives by that writing, as if the words, images, and other symbols in the work somehow semiotically unlocked the algorithmic understanding of reality for them. To write the spells themselves feels like hacking life itself.

It is important to keep in mind, too, that magic is found in any piece of writing, albeit hidden or hard to see at first. This is one of the common biases to push back against: written work worthy of curiosity and closer study doesn't need to be a book, or any relatively polished artifact for that matter, it can be any piece of writing, e.g., a pamphlet, someone's lost shopping list, a 1977 environmental assessment from a state government agency, a blurb or scribble, anything. There is magic in so-called "everyday" communication, i.e., secret knowledge imbued/embodied/mediated in artifacts produced. Behind the object, people had a hand in crafting the words. Minds worked behind the scenes, imbued knowledge and wisdom, lived. We can think about and analyze the words they wrote and/or edited, understand some of their thoughts, consider what the language reflects, why, for whom, maybe know their magic.

Travel across the countryside, head to the corner store. Go to the city, visit a publishing house or observe a laboratory—from one community who writes to the next, the same discursive scene and situation occurs over and over again: Groups of people with shared or different backgrounds, abilities, and visions coalesce around shared ideas that hold value for the individuals in the group. To retain and strengthen this coalescence, together they document their collective, generating typified "mind-children," or "offspring of the mind," whose textual identities and structures stem from their parents' ideologies. In the process of documentation, they grow organically from/within/around inherited latticework (superimposed genres exosystems being one among these structures). At the end of their growth, the offspring crystallize into memorialized declarations of thought patterns that are then distributed and disseminated into other readers' minds, mingling with their own ideas and mental models, affecting their attitudes and behaviors, i.e., emotions and actions. These archivable mind-children manifest as a host of artifacts that mediate this cognition-made-visible process, from toothpaste tubes to labels to investigative reports to multiple-choice quizzes.³

¹ Pearl (2018), *The Book of Why*, 8. Another example is associating *yogurt* with sweet and *sour cream* with savory.

² Wolff (2008), *Proust and the Squid*, 168-169.

³ Winsor (1992), "What Counts as Writing?" 339.

Each mind-child is different, but underneath the words, between the lines, they also all have at their core similarities shared between them. These underlying principles are what bind all seemingly separate genre lineages/environments. A fast-food menu is on common ground with *War and Peace*, both worthy of study, related even, perhaps distantly, maybe cousins of a sort. Genre agnosticism breaks down the artificial walls/boundaries/expectations. It creates relationships, connects. Under a biological model, documents become “phenotypes” of a genre, in which genre is the underlying mechanism, the inheritable “genotype,” connecting their phenotypes to originating ideas, a history, a culture, a way of thinking, seeing, and acting in the world. In this way, written language has more biological aspects than what is was largely approached as mechanical.

In the range of different discursive ecosystems out there, there are gargantuan genre sets that lurk in deep recesses of governmental documentation sector are unrivaled in their size and scope. They are in many ways magnificent and foreboding beasts compared a humble 200-page novel. They are also hydras, with many heads and grotesque bodies. At first, these behemoths are somewhat alarming in size and a bit foreboding, but that is their allure too. There are some that have a powerful type of magic in them as well, legislative mandates, which are scripts with spells that bend whole populations toward their ideological will, for better or worse. There is also a majesty in the movement and dynamics of those living and breathing documentation ecosystems that can take, for instance, the idea of putting humans and nonhumans on orbiting bodies outside Earth’s atmosphere and make it a physically reality.

It’s not all pie in the sky, either. The magic that lurks in anything can be used by any mind with the awareness of it. That mind need not be benevolent or even consciously aware of the power genres wield. The term “bureaucratic” hints at the broken, work-laden beasts pulling needless reams of paper behind them, mountains to weigh whole populations down. There is a saying that “the large print giveth, and the small print taketh away.”

What does all this have to do with *superimposed genre exosystems*? With a lot at stake in a project or megaproject, there is a need to oversee and, in some cases, assist massive systems with growth. Large projects often have thick ideological crusts to break through. Multiple planes of socially connected networks need to feed and sustain project activities. There are forces constantly at work against success. There are certain proven ways to manage a project too. To address the inherent risk these investments represent, a species of genre approach sometimes emerges in these scenes through social situation and/or action, the *superimposed genre exosystem*. The overarching activity of these sets of genres is mainly one of oversight, in which outside genre frameworks (“genre exosystems”) are superimposed on (or “laid upon”) a writing scene/situation by governing, legislative, and judicial entities. Oregon state has been experimenting with a relatively new exosystem approach in the state IT called “State Gate.” This superimposed genre exosystem asks the questions: How do we know that the investment is worth it? How can we be assured that it will work? What will be the consequences of a failure to act? Etc. This case study examines the nature and dynamics of Stage Gate to (a) arrive at conclusions about the nature, dynamics, and importance of the superimposed genre exosystem and (b) provide recommendations for possible revisions to the Stage Gate exosystem.

3 INTRODUCTION

When accessing government services, most people today use a government agency website—either to find an online chat service, contact email, phone number, physical location, mailing address, or to use software to engage with one or more of the agency’s external business functions as it relates to the agency mission and vision. Similarly, agency staff use enterprise-level software designed to perform specific internal business functions to satisfy their external business needs and requirements.

Not only does a government agency website act as a popular nexus of information and data exchange between the people and their government, but government agencies from the local, regional, state, to federal level in Oregon increasingly rely on IT professional services and cloud solutions (i.e., software as a service [SaaS]; infrastructure as a service [IaaS]; and platform as a service [PaaS]).⁴ Mostly gone are the days of custom builds from in-house agency developers or local IT consulting companies. Many vendors are based out of state. Add to this growing reliance a growing number of staff vacancies throughout all levels of government, either from lack of funding, retirement, outsourcing to private industry, and/or the broad trend of digitization via automation points us toward the “internet of things (IoT).”⁵ Those who are left must do more with less, and instead of more human bodies being staffed, these roles/activities are being automated, and what employees exist are given a nonhuman actor/computer system to help.

As the digital interface of an enterprise IT system becomes more of a focal point and exchange for the public and agency staff, the more important, expensive, riskier, and scrutinized the computer systems become. For good reason—no one wants failed/hacked/ransomed IT systems. That’s the hope, at least, although not always the case. When it comes to high-profile enterprise systems, Oregon has had ups and downs over the years. The worst of the list includes the state’s lawsuit with Oracle, Cover Oregon’s issues, Project MUSIC— all fraught, expensive IT systems with unhappy stakeholders.^{6,7,8}

In 2015, House Bill 3099 passed and redesigned the Office of the State Chief Information Officer, merging the office with Enterprise Technology Services and giving the State CIO independence and accountability, joint authority over statewide policy and service delivery, independent procurement, contract enforcement authority, oversight over Oregon’s long-term IT strategy, the Governor’s Office⁹ righthand on technology and telecommunications, and management of the IT governance framework.

⁴ Pettit, Alex Z. (2017) “Answers to questions asked during public testimony on HB 5002,” Office of the Chief Information Officer, Oregon Department of Administrative Services, 3.

⁵ Stephen Ornes (October 4, 2016), “Core Concept: The Internet of Things,” *Proceedings of the National Academy of Sciences* 113, no. 40, 11059–11060: <https://doi.org/10.1073/pnas.1613921113>.

⁶ Gartner, Inc. (February 7, 2018), “A Report for Oregon OSCIO, DHS & OHA: ONE IE&ME Project Schedule and Budget Estimation Review, Assessment, and Validation, Engagement: 330045871,” OSCIO, DHS, and OHA., 1–11.

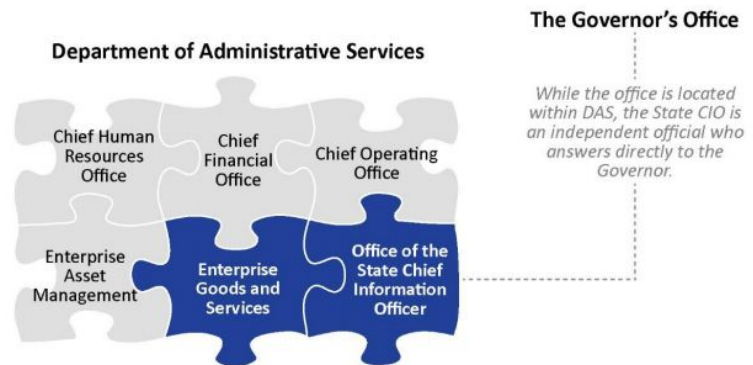
⁷ Barb Darrow (September 15, 2016), “Oracle and Oregon Settle Nasty Lawsuit for \$100 Million,” *Fortune*: <http://fortune.com/2016/09/15/oracle-oregon-law-suit-settlement/>.

⁸ Nigel Jaquiss (March 14, 2018), “The State of Oregon’s New Phone System Doesn’t Work—And It’s Beginning to Echo Previous Tech Fiascos: ‘No dial tone,’ explained a state employee who couldn’t call us back,” *Willamette Week*, <https://www.wweek.com/news/state/2018/03/14/the-state-of-oregons-new-phone-system-doesnt-work-and-its-beginning-to-echo-previous-tech-fiascos/>.

⁹ House Bill 3099, 78th Oregon Legislative Assembly, 2015 Regular Session: <https://olis.leg.state.or.us/liz/2015R1/Downloads/MeasureDocument/HB3099/Enrolled>.

Since that time, the office responsible to the Governor over these matters, the Oregon's Office of the Chief Information Officer (OSCIO), a division of the Department of Administrative Services (DAS), in partnership with the Legislative Fiscal Office (LFO), have implemented a stricter oversight/review process than had previously been practiced or enforced in Oregon government.

Although not explicit in the statute, one aspect of the solution has been the implementation of a technical documentation "exosystem," an oversight framework called "Stage Gate" (SG), a high-risk project review process designed for enterprise systems over \$1M. State Gate was established "to identify, approve, monitor, and support IT investments across all state agencies" while brokering resources, identifying and resolving IT project issues, and striking a balance between "central service delivery and agency flexibility."¹⁰




This new legislation changed the way the state had done business relatively quickly. Before, agencies were accountable to the state for large IT enterprise systems that it built, but not to the degree of having the *yes* or *no* from the DAS/OSCIO and state oversight partner, the Legislative Fiscal Office (LFO).

¹¹ Now, any agency interested in a new high-profile website must pass through certain developmental stages, with a review and DAS/OSCIO/LFO endorsement of technical documentation at every stage's gate, where the documentation at each stage acts as a verification the agency has done its due diligence that the IT investment and its projected benefits outweigh its potential costs and risks.

Starting the process remains the same for all agencies. When the agency enters stage gate to build a new IT system and meets certain threshold criteria, e.g., cost or risk¹², whatever the OSCIO deems important, then the

agency's IT system project enters the SG process: four stages and four respective gates that each project must "pass through" via the endorsement of the legislature with the passing of the budget to help fund some of the new system.

stage gate

/stāj/ /gāt/ 
noun

1. formal review conducted at prescribed points in a **project life-cycle** for the purpose of controlling project risk, monitoring scope changes and maintaining stakeholder engagement
2. conceptual and operational **models** that provide key communication opportunities for moving a project from idea to closure (project to program)



¹⁰ OSCIO, "Strategic Governance:

Administrative Services: <https://www.oregon.gov/das/OSCIO/Pages/StrategyGovernance.aspx>.

¹¹ Berri Leslie (2017), Deputy Chief of Staff, "RE: Office of the State Chief Information Office (sic) (OSCIO) Assessment," memo to Governor Kate Brown, 3.

¹² SG documentation is required for all investments that meet oversight thresholds as defined in DAS policy 107-004-130 (and PR), which references ORS 276A.200-236 and 279B.030: https://www.oregon.gov/das/Policies/107-004-130_PR.pdf and https://www.oregon.gov/das/Policies/107-004-130_PR.pdf.

The gates provide a safety measure and show that the IT system's development is going according to plan (or not). A public agency's new IT system cannot "go-live" without the endorsement. At the end of the all the stage gates, after the OSCIO is sure that the IT system is stable, and the critical line has been properly met as plotted, then the agency leaves the oversight cycle.

Stage Gate's origins make it a unique case among genre systems. "Stage Gate" is a relatively new term in Oregon, less than half a decade old. Whereas some genre ecologies arise more naturally over time, such as the scientific report, which took 150 years¹³, Stage Gate arose relatively quickly out of a social response/reaction to a shared perception and economic loss, bruising, embarrassment, ethos adjustment that there was a need for IT governance of major systems in Oregon. In a short matter of time, Oregon's IT oversight problem was met by a giant "one size fits all" genre exosystem with the purpose of providing a "window" on agency projects by placing genres on top of, overlaying them across agency efforts during incubation and using them to monitor development, support growth, and disconnect after the system is deemed healthy and ready to fend on their own.¹⁴

In May 2014, the OSCIO and LFO began with an initial portfolio of 81 projects (active and planned), with a total at the time of 70 projects valued at \$1,085,213,113.¹⁵ In 2018, 23 state agencies submitted 63 preliminary business cases to begin the state gate review process.¹⁶ In this half decade of its existence, Stage Gate has grown, and the OSCIO has been given more oversight power by the state legislature to bring IT governance, security, and other named priorities to the many state agencies IT systems, not just for enterprise systems. As of 2018, there have been 224 projects involved with State Gate.¹⁷

All told, the documentation required to stand-up an enterprise IT system within the state's digital portfolio and ecosystem involves the creation of a volume set of books. Many types of documents go into the building of the IT system, not the least of which are the lines of code of the IT system itself. The graphics below provides a bird's eye view of the overarching network structure as this analysis starts to drill down into the details of the documentation that supports this structure.

- **Steps 1-4 below:** Provided is the basic organizational map showing how DAS/OSCIO is the IT arm of the people's governor's office in the executive branch. OSCIO is part of the Department of Administrative Services (DAS), as seen in the extension in the URL [Oregon.gov/DAS/OSCIO](https://www.oregon.gov/DAS/OSCIO). To see this starter documentation, the public, vendors, and state agency staff can navigate to the OSCIO webpage that holds public-facing materials to get started.

Steps 5-6 below: Anyone who wants to can also review the basic stage gate process by referring to the high-level diagram on that page or click on the Adobe PDF icon to open the detailed flowchart. The template files and other starter documentation reside in website folders on servers at the State Data Center (SDC), which have original copies secured servers and/or drives.

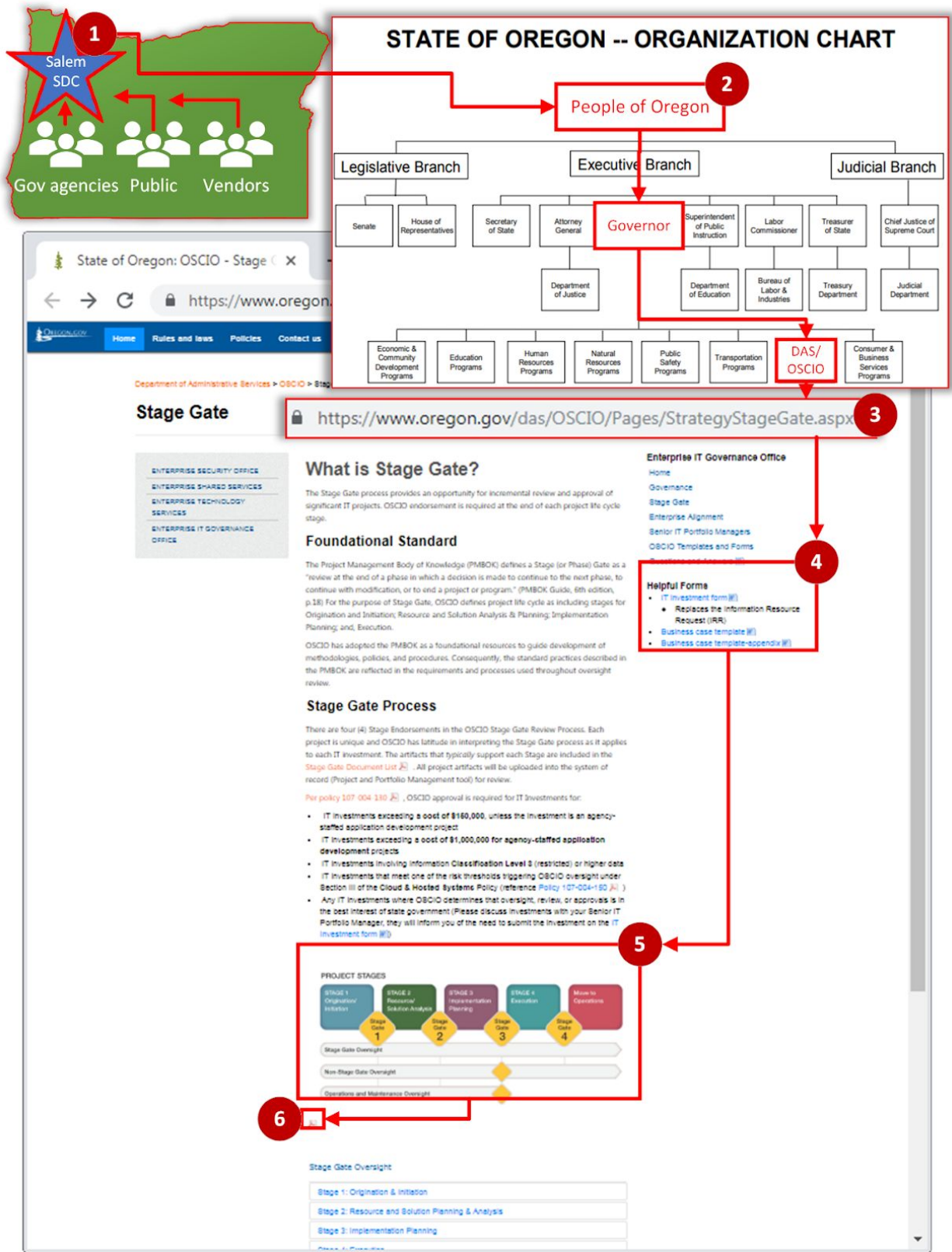
¹³ Bazerman, Charles (1988), *Shaping Written Knowledge*, 77.

¹⁴ Correspondence with OSCIO, March 2019.

¹⁵ OLIS (2014), "OSCIO/LFO Project Portfolio List (>\$1M)": https://www.oregonlegislature.gov/lfo/Documents/Portfolio_List.pdf

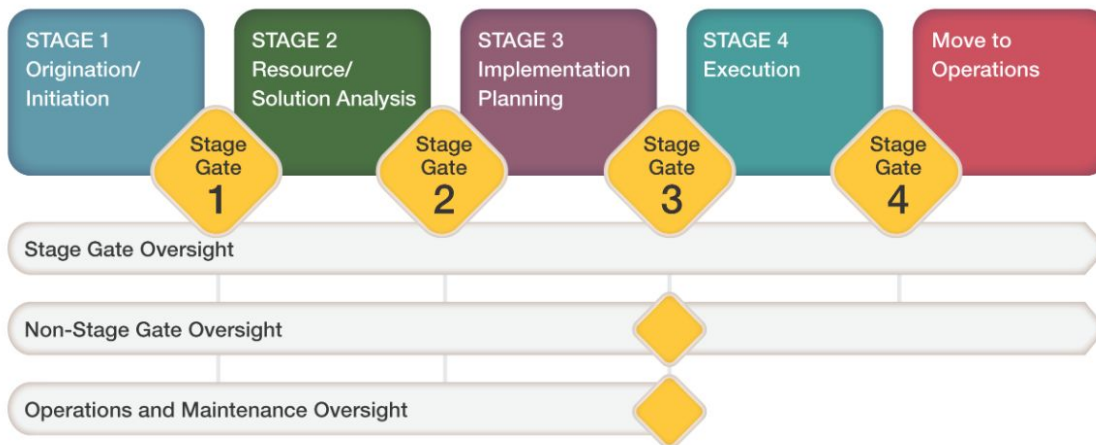
¹⁶ URL: <https://olis.leg.state.or.us/liz/2019R1/Downloads/CommitteeMeetingDocument/156920>

¹⁷ Secretary of State (2018), "Significant Cost Savings Can Be Achieved by Modernizing Oregon's Procurement Systems and Practices," 6.



As seen above in the diagram in number 5, there are four stage endorsements in the stage gate process, see below for an expansion of this flowchart. Because there is no specific language in Oregon Revised Statutes (ORS) on how the OSCIO structures the State Gate genres, just how the general process should proceed, the OSCIO has set up best practices and standards and given latitude in interpreting the Stage Gate process as it applies to projects undertaken by executive branch agencies and other “covered organizations.”¹⁸

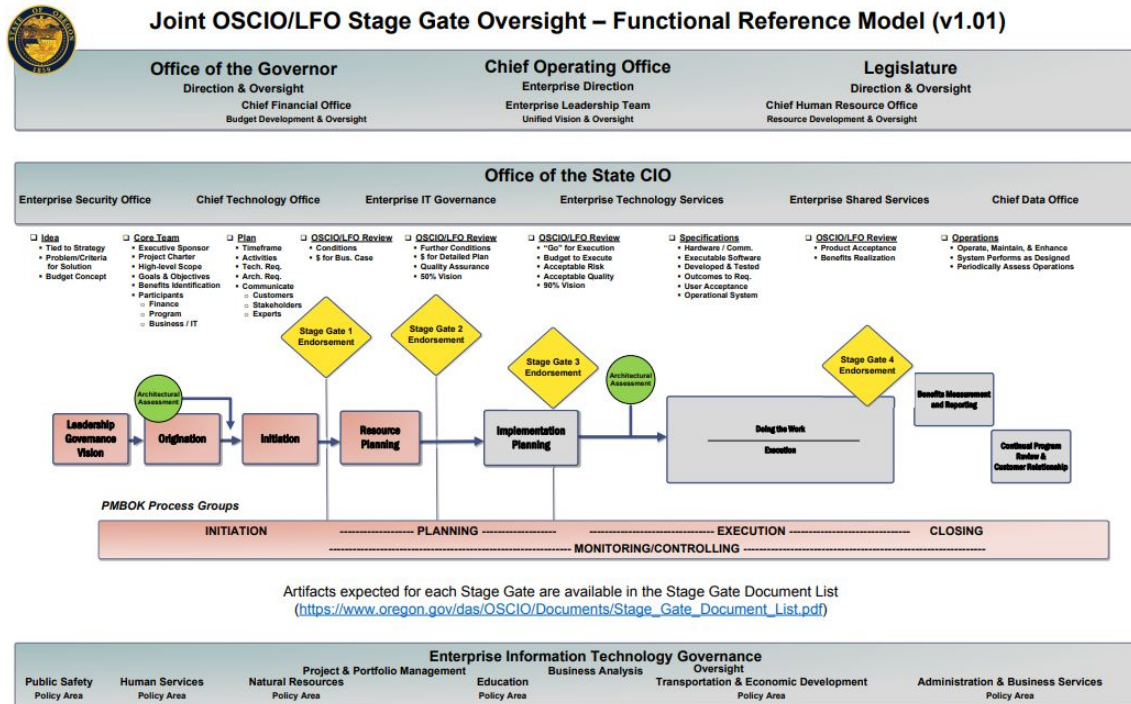
PROJECT STAGES



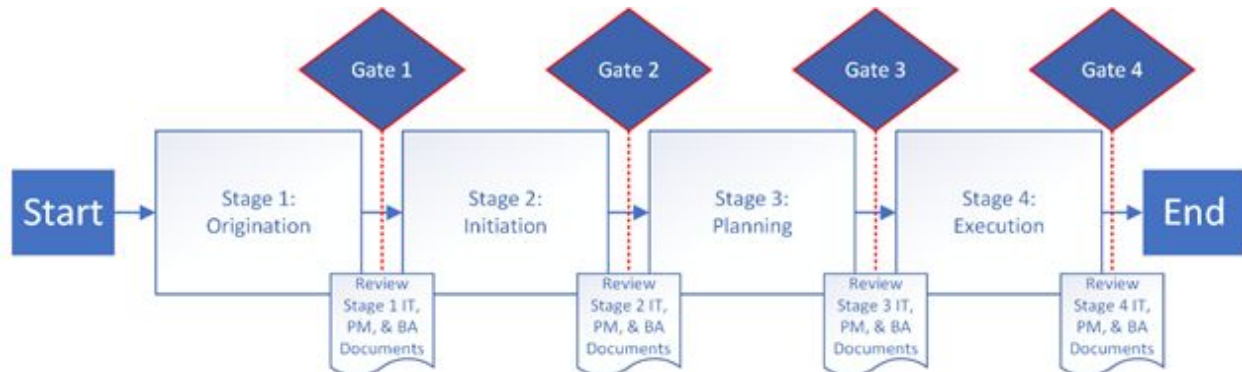
Another way of visualizing the above is below, the “Functional Reference Model”.¹⁹

¹⁸ OSCIO, “Narrative Guidance on Stage Gate Review Process,”
<https://www.oregon.gov/das/OSCIO/Pages/StrategyStageGate.aspx>

¹⁹ OSCIO, “Stage Gate Oversight - Functional Reference Model,”
https://www.oregon.gov/das/OSCIO/Documents/Stage_Gate_Review.pdf



Taking the two figures above, we can see the networks of stakeholders that form the oversight that must be informed by the genres-turned-artifacts in the documentation process. The figure below further simplifies this process and giving more symmetry to the process model.

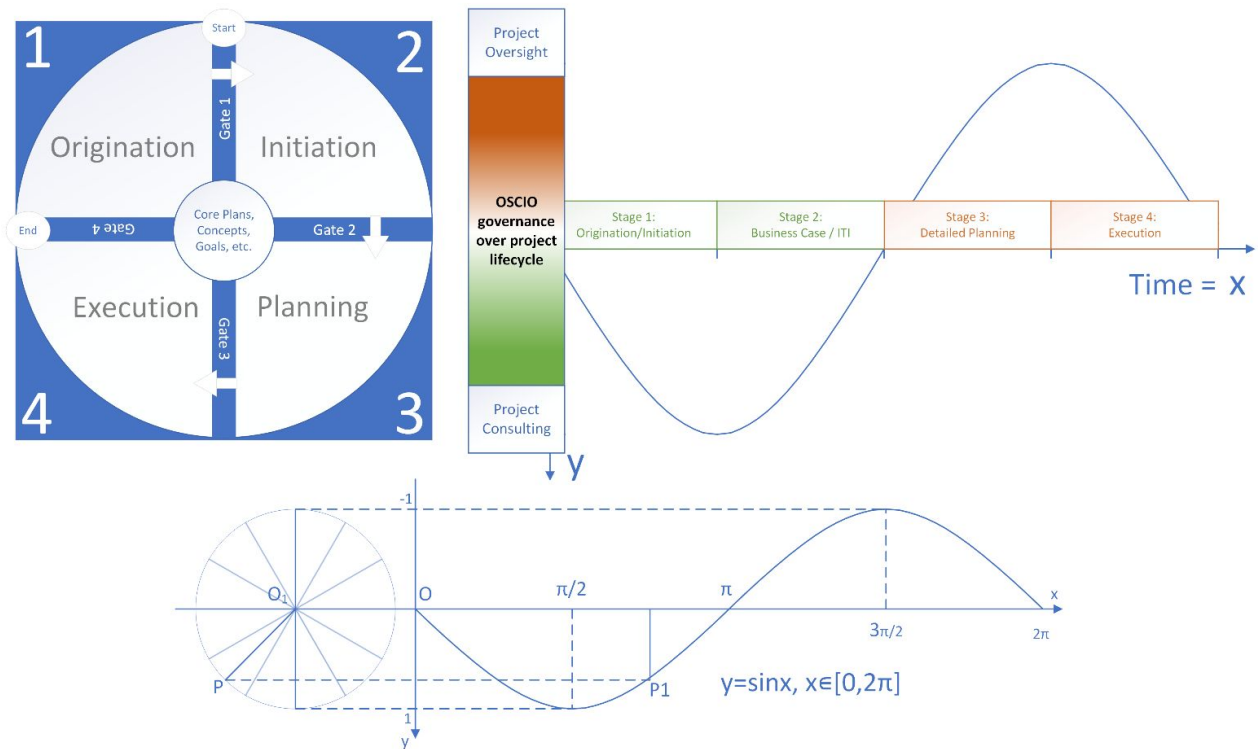


Thought of in even simpler dimensions, put in more basic terms, this genre exosystem models the development cycle, see the next figure below, which is another iteration of the above, but this time even more simplified into a basic cyclical development model.



One thing to note in all figures above is how the scope of SG is limited; the agency eventually takes over governance, oversight, and accountability for the system. All the stage gate does is usher the system into existence using the best practices model that the state has implemented.

The figure below takes this another step further by tracing out a visualization of how the review process fits in to the level of oversight being superimposed with the genres being used in the process. The trough and pitch of the wave indicates how much involvement the OSCIO has. OSCIO's engagement over time essentially starts out low (-1) and, if the project deems it, then increases in intensity (1) and then lowers again to neutral (0).



How do the superimposed genres fit into this cycle? The OSCIO provides a summary document, called the “[Stage Gate Artifact List](#),” which lists all the genres in the exosystem, and how they line up.²⁰ The business case, project management plans, variance reports, and other genre sets are “working” documents in a living, evolving genre framework created by the state to place on top of the agency project documentation, assist where needed, then detach after project operations and maintenance of the young enterprise system were deemed sufficient without oversight.

In an ideal world, the superimposed genre exosystem and the imposed upon genre ecosystems align along ideological and practical lines, but as with any superimposition, there is risk of misalignment. Systems and projects can get bogged down by disruption and mandated mediation that doesn’t do the job or costs too much or both. Genres in a healthy system need to all be tuned together and evolve as the project progresses through the development cycles, from origination to execution and beyond, but this isn’t always the case. While genres are important mediators of activity, and superimposed genre exosystems are meant to help, sometimes these approaches do the opposite. When it comes to genres that are superimposed, or “laid upon,” there can be misconceptions about their nature and dynamics. Not all superimposed genres are impositions in the pejorative sense, but they can be seen that way. Confusion in genres often leads to contradictions, discoordination, and breakdowns.²¹ Sometimes these genres have unspoken impositions that uncommunicated make everyone think there is alignment. The next section takes a closer look at where some of these biases come from and how superpositioned genre systems with oversight forms and functions fit into the larger whole.

²⁰ OSCIO (2019), “Stage Gate Artifact List,” https://www.oregon.gov/das/OSCIO/Documents/Stage_Gate_Document_List.pdf.

²¹ Spinuzzi (2008), *Tracing Genres*, 185.

4 LITERATURE REVIEW

“The longer you work with genre, the more it reveals and the more it connects with—perhaps because genre is at a central nexus of human sense-making, where typification meets utterance in pursuit of human action.... An understanding of genre brings us into touch with the manifold uses of writing in different parts of society, the economy, governance, and culture.”

~Charles Bazerman²²

Getting to a model for the nature and dynamics of superimposed genre exosystems requires charting its branch on the great genre tree that spans human civilization. After all, no genre is an island. Rarely are they born in vacuums. Genres are language based, and language is a social activity with origin/s of input.

When a genre exosystem is superimposed on a writing scene and situation, sometimes they are “best guesses,” but usually based on previously models, current resources, and forecasts of the future. This is the case with Stage Gate’s genres: as attitudes, ways of knowing, and goals surrounding IT changed in Oregon, the state took already existing genres and, in some cases, developed new ones that more effectively reflects these new attitudes, ways of knowing and goals.

We can use what we know about analyzing and tracing genres through organizations to help analyze and trace the superimposed genres through the exosystem. Indeed, what has been particularly useful about genre’s dynamic aspect is that it has been used by theorists as a unit of analysis to track individual or collective cognition that has been dispersed or concentrated over multiple levels of scope in space and time, organizationally speaking. For the OSCIO, this means their superimposed genres could be used to explore the various intersecting activities, or ways in which they have been taken and developed by agencies, or methods and strategies for continuing to support that development, and so on, part of what this study looks at.

Tracing genres allows for a cultural/societal/historical/psychological perspective for future design, as well. This is an opportunity to learn about innovations that are “usually rendered invisible by other approaches,” but that are “inventive, wily, devious, sly, cunning, and crafty....[and] deserve to be heard.”²³ With exosystems, this is especially important to consider. The grafted exosystem superimposed on the host genre could have a better rate of survival if the match were customized to key variables. The OSCIO, in other words, has an opportunity to see how its superimposed genre exosystem has worked, and whether there is cause for readjustment on the activity, action, and/or operational level (usually all three since they are in many ways inextricably connected).

The sections below provide the backdrop to the literature that informed the research, as this case study explores the meaning and types of genre/s, audiences, purposes, writers, etc., within the writing scene and situation of the OSCIO Stage Gate superimposed genre exosystem.

4.1 BRIEF HISTORIES OF GENRE

Genre is a group noun, a profound concept with deep, ubiquitous, multiple roots in the human psyche. Genre not only manifests as a studiable effect of the human condition but also affects consciousness

²² Bawarshi & Reiff (2010), *Genre*, xi-xii.

²³ Spinuzzi (2008), *Tracing Genres Through Organizations*, 223.

itself. Genre is both a product of the meaning-making process and a producer of it. Genre is in one respect artifice and in another organism. For evidence of genre's twofold, janus nature look no further than its etymological roots, which hold a first and second meaning:²⁴

- *Genre* → *gender* (cousin) → *genus* (Latin cognate) → means "kind" or "a class of things"
- *Genre* → *gender* (cousin) → *genere* (Latin cognate) → means "to generate"

How genre has been perceived and implemented throughout its history reflects this dualism.

This paper can't/won't pretend to properly/comprehensively cover a topic as wide, and in many ways unfathomable, as the "richness of the concept genre," as Bazerman writes.²⁵ Indeed, there are whole genres about writing about genres. Countless works have been penned and published. As one might expect, too, the concept of genre doesn't stem from one source either; different traditions have informed genre theory and research activities stemming from regions throughout the world. Furthermore, there are variations and overlaps in genre application.

However, from a high-level perch—looking across a long and wide ocean fetch composed of volumes, works from North America, United Kingdom, Australia, France, Brazil, and all traditions throughout the world—the concept of genre seems to have evolved over time into different schools of thought based on the origin story but essentially landed in the same spot, that genre is inextricably linked to social action and sustained activities.

Below is a table that lists the different schools of historical thought with a short summary of origins, current paradigms, and relationships to other schools, if applicable. Also shown are any relationships these traditions have to superimposed genres and the concept of exosystems that are overlaid on top of existing genre systems, the latter of which typically evolving more naturally within its environment/scene/setting and the special situations that arise in these scenes, as opposed to being grafted onto the scene, like an exosystem is:

School of thought	Brief description of theory	Case study scope
Literary theory	<p>Genre study within literary traditions includes neoclassical, structuralist, romantic, post-romantic, reader response, and cultural studies approaches.</p> <p>Bawarshi and Reiff write that literary traditions have a "bipolar," "culturally widespread" view of genres as either as an "exclusively aesthetic object or as a constraint on the artistic spirit." Bawarshi also use "imposition" instead of "constraint" in the same text. What's notable here for this case study is that Bawarshi and Reiff use the terms "constraint" as a synonym with "imposition," which point to the somewhat negative connotations that come with terms like "superimposed." Here, we already see glimmers of what an exosystem is up against; perceptions of stymied</p>	Out of scope, save aspects of Cultural Studies

²⁴ Skeat (1882, 1965), *Concise Etymological Dictionary of the English Language*, 249.

²⁵ Bawarshi & Reiff (2010), *Genre*, xi.

	<p>creativity, whether it turns out to be the case or not.</p> <p>However, Bawarshi and Reiff point out, as well, literary and cultural studies approaches have expanded to align with linguistic and socio-rhetorical traditions.²⁶ Cultural Studies has been one genre school that looks at the choice of genre as a selection of an interpretive framework guided by a knowledge of certain social practices.</p> <p>While the scope of this literature review does not cover literary theory's genre traditions, the movement within Cultural Studies provides valuable insight into the "dynamic relations" between superimposed genres and "historically situated social practices and structures."²⁷ Bawarshi and Reiff quote Todorov:</p> <p>"Like any other institution, genres bring to light the constitutive features of the society to which they belong;" as such, "a society chooses and codifies the acts that correspond most closely to its ideology; that is why the existence of certain genres in one society, and their absence in another, are revelatory of that ideology."²⁸</p> <p>As will be shown, this social aspect of genre is a crucial world model that cannot be underestimated or considered automatic when modeling an exosystem and superimposing certain genres on local cultures' ideologies.</p>	
"Sydney school," systemic functional linguistics (SFL)	<p>Linguistic traditions were the first to identify genre's pedagogical implications. Australian genre researchers approach/tradition arose from national curriculum aimed at K-12 students.</p> <p>Teaching genre is often overlooked in writing disciplines. It's not uncommon for practitioners of genres to hold the secrets of their craft tightly bound. It is also not uncommon for workplace genres to go unexplained and something that must be learned by newcomers on a trial and error basis. For exosystems, teaching the genre can be a critical component in writing for it. Typically, the format that teaching appears in workplace environments is training, which the OSCIO does provide agencies, but not on the scale of teaching the theory</p>	Out of scope

²⁶ Ibid., 8, 14, 23.

²⁷ Ibid, 24.

²⁸ Ibid., 24.

	behind the genres, mainly just as artifacts and tools for the reporting activity.	
Historical/corpus linguistics	Genre is a studied variable in historical and corpus linguistics and has a strong bearing on informing parts of research on superimposed genres, but for this cases study is out of scope because of time, not for want of more material and knowledge of this area.	Out of scope
English for Specific Purposes (ESP)	ESP accounts for discourse community and communicative purpose, emerging in response to bridge linguistic and rhetorical traditions and address the specialized literacy needs of needs of graduate student, non-native speakers of English. This case study has not explored this area of genre.	Out of scope
French and Swiss pedagogical traditions	<p>The French and Swiss genre traditions are informed in part by the theory of “socio-discursive interactionism,” drawing on the work of Bakhtin, Vygotsky, Wittgenstein, Foucault, and Habermas. Bawarshi and Reiff write, “the theory of socio-discursive interactionism itself has not had much direct influence on North American RGS,” but they also point to the fact that the Vygotskian conceptualization of activity and action clearly parallels²⁹ RGS’s adaptation of Vygotsky’s activity theory.</p> <p>Activity theory will play a role in this case study, as well as actor network theory. Bruno Latour’s theories are found in Spinuzzi’s work, and Pierre Bourdieu’s sociopolitical modeling will have some bearing in the analytic “capital model” of this case study.</p>	In scope
Brazilian synthesis	Sponsored by the Brazilian Ministry of Education’s National Curricular Parameters and the International Symposium on Genre Studies (SIGET), the work of Brazilian genre scholars, researchers, and practitioners has been synthesized with that of the French and Swiss pedagogic traditions, as well as the with the linguistic and socio-rhetorical traditions. This area has been largely, unfortunately out of scope for this research.	Out of scope
“North American” approach/traditio	While Bawarshi and Rieff note that the school of thought has mainly been targeted at college-level, native speakers of	In scope

²⁹ Ibid., 90

n, Rhetorical Genre Studies (RGS)	<p>English, RGS spans contexts and disciplines as varied as technical communication, composition studies, rhetoric, applied linguistics, TESOL, critical discourse analysis, sociology, education, literary theory.³⁰</p> <p>Rhetorical theory and sociology are lodestones in the RGS universe. The school of thought counters the rigid and narrow categorizations of genre as a simple “text type” or “artificial system of classification,” and instead offers “an understanding of genre that connects kinds of texts to kinds of social actions.”</p> <p>This study borrows perhaps most from the theories from the North American RGS tradition.</p>	
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The common notion that all these well-known genre traditions seem to agree upon is that whatever part of the world you’re in, whatever language you happen to be communicating in, genre is inextricably linked to recurrent social activity; how we model it seems to be what is timelessly shifting in traditions.

While the works of Mikhail Bakhtin, P. N. Medvedev, and V. N. Voloshinov underpin the North American genre school and are where the concept of genre as tradition come from³¹, the paper lauded as the groundbreaker for RGS studies was Carolyn Miller’s “Genre as Social Action,” published in 1984, in which Miller reframed genres as “typified rhetorical ways of interacting within recurring situations,” which created new possibilities for the study and teaching of genre.³²

Miller fused rhetorical criticism and social phenomenology, drawing on research in rhetorical criticism (Burke, Black, Bitzer, and Campbell and Jamieson) and connecting that to research in social phenomenology (from Schutz, specifically, but phenomenology stems from Husserl and Heidegger).³³ The resultant synthesis was an expansive new definition of genres as “socially derived, intersubjective, rhetorical typifications” that help people and/or groups recognize and take action within recurrent situations. Bawarshi and Reiff explain this synthesis, or “fusion”:

“Miller’s crucial contribution to RGS is her formulation that genres need to be defined not only in terms of the fusion of forms in relation to recurrent situations (described within rhetorical criticism), but also in terms of the typified actions produced by this fusion (described within social phenomenology).”³⁴

The idea that actions are based in recurrent situations has had ripple effects on how we understand genre’s dynamic, intoxicating, some might argue magical relationship with how humans construct,

³⁰ Ibid, 3.

³¹ Spinuzzi (2008), *Tracing Genres*, 41.

³² Miller, Carolyn (1994), “Genre as Social Action.” *Genre and the New Rhetoric*. Aviva Freedman and Peter Medway (eds.). Bristol: Taylor and Francis. 23-42.

³³ Bawarshi & Reiff (2010), *Genre*, 6 and 69.

³⁴ Ibid.

interpret, and/or navigate various situations, social motives, and exigencies within scenes and the situations within those scenes.³⁵

Since the 1980s, schools/communities of scholars, researchers, and practitioners in academic, professional, and public writing alike have been using genre analysis as a tool for making meaning in writing's many recurrent scenes and situations, not just literary studies but also composition and rhetoric, technical and professional communications, and other discourse communities. Many people's work in various traditions have shaped our common understanding of genre, and these traditions have informed work in genre research and pedagogy. In the process, genre analysis has become increasingly defined as an avenue for "recognition, response, and action of recurrent situations."³⁶

4.1.1 ACTIVITY THEORY

This RGS view of genre as social action aligns with the French and Swiss genre traditions, which were informed by the theory of "socio-discursive interactionism" and theorists like Bakhtin, Vygotsky, Wittgenstein, Foucault, and Habermas. However, as Bawarshi and Reiff write, "the theory of socio-discursive interactionism itself has not had much direct influence on North American RGS."³⁷ In the same paragraph, no less, they point to the fact that the Vygotskian conceptualization of activity and action clearly parallels RGS's adaptation of Vygotsky's and others' formulations of activity theory.

In terms of the development of activity theory, activity theorist Yrjo Engeström distinguished three "generations," but counting the precursor period's theoretical development upon which activity theory was built makes four, see below³⁸:

Generation	Description
Prototype	Karl Marx wrote <i>Kapital</i> and other works that use non-Hegelian materialist dialectics, which was then "popularized and universalized," writes Clay Spinuzzi, ³⁹ "by Marx's collaborator and posthumous editor, Frederick Engels."
Gen 1	Lev Vygotsky and collaborators build directly on Engels's ideas to develop the concept of mediated human activity in the individual, laying the foundations of activity theory.
Gen 2	A. N. Leont'ev applied the concept of mediation to larger social groups, yielding a unit of the activity system, and this innovation was widely considered the beginning of activity theory.

³⁵ Ibid. See also Devitt, Reiff & Bawarshi (2004), *Scenes of Writing*.

³⁶ Ibid, 3.

³⁷ Bawarshi & Reiff (2010), *Genre*, 73.

³⁸ Spinuzzi (2008), *Network*, 69, quoting 1996a.

³⁹ Spinuzzi (2008), *Network*, 68-69, quoting Wilde, 1991.

Gen 3	In the later works of activity theory, Engestrom and collaborators drew more heavily on the works of Marx and other Soviet theoreticians, including Evald Ilyenkov. ⁴⁰ These works focused on Kuhnian-like contradictions applied to activity system. ⁴¹ These later works also evolved activity systems into activity networks, which was picked up on by North American theoreticians like Spinuzzi, who point to this time period that activity theory began to “come to grips” with two aspects of network splicing: ⁴² polycontextuality and boundary crossing.
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Throughout all activity theory’s “generations,” the concept of mediation played a key role. This is the common human behavior of storing our thought in another thing (which out of context almost sounds like the line from a science-fiction fantasy novel). An example is using another object to envision doing something later is another example of this. Computer hard drives that remember our phone numbers are a modern example of this, but humans have been using mediation for uncharted amounts of time. A much simpler example is tying a string around a finger as a reminder of a future task/chore, e.g., taking out the trash. In Vygotsky’s case, his “aide-mémoire” was the Russian tradition of referring to the tying of a knot in a handkerchief. The object need not be as tangible either; think of a structured memory technique like singing the alphabet in order to remember it. In the case of documentation, mediation appears in formats as simple as a to-do list and complicated as major annual reports for large federal government agencies. Regardless of the object of mediation, it’s a form of self-regulating mediation. This is important because there is an argument to be made that people themselves are psychologically transformed by the mediation artifact; they can in essence begin to think, act, and value differently based on the type of mediation.⁴³ “And in learning and taking up a culture’s mediators, we become acculturated.”⁴⁴ This is where exosystems can be so powerful. They in many ways dictate thought.

See below for a sample activity diagram that shows the different relationships between elements. The use of the exosystem to superimpose on another genre body is not exactly the most natural way that genres arise; nevertheless, it follows the same structure and is the result of a recognition, response, and set of actions to set a system in place, at cost to the governance bodies initially, but the thought is that the exosystem genres will curb any scope creep or issue like Cover Oregon. Stage Gate, in other words, is a form of self-regulation mediation.

⁴⁰ Spinuzzi (2008), *Network*, 69, citing 1977, 1982.

⁴¹ Kuhn (1962), *Structure of Scientific Revolutions*, 11.

⁴² Spinuzzi (2008), *Network*, 69, quoting 1996a.

⁴³ Ibid., quoting Michael Cole, 1996, 108.

⁴⁴ Ibid., quoting Luria, 1976.

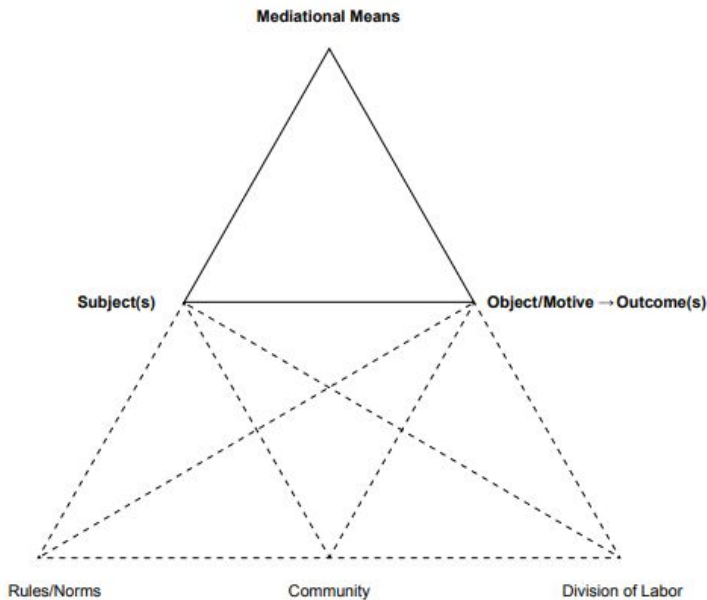


Figure 6.1: An activity system (adapted from Engeström, "Activity Theory" 31).

Over the years, RGS scholars have developed several useful concepts to describe the complex ways in which related genres enable their users to perform consequential social activities/actions. A powerful analytical toolset has been looking at not just the genres artifacts in isolation, but studying their role in supporting, sustaining, or hindering the discourse communities that subscribe to them, or perhaps had a hand in building, or might in fact revise at some point down the road. This is where the concepts of genre as a unit of analysis start to play a key role in analysis of the collective cognition of a large body, and this is where the concept of exosystem finds its place.

4.2 GENRE SETS, SYSTEMS, AND ECOLOGIES

As we work our way to exosystem, there are many ways to refer a group of genres, but perhaps the best known is *genre set*, which begins to show the interconnections between genres in the same environment. Amy Devitt introduced this term to describe the set of genres used by tax accountants to perform their work, which she called "intertextuality," which speaks to interconnections between related genres.⁴⁵ Expanding upon the notion of genre sets, Charles Bazerman introduced the idea of genre systems to describe the constellation of genre sets that coordinate and enact the work of multiple groups within larger systems of activity.⁴⁶ Clay Spinuzzi, Mark Zachry, and others have helped defined "ecologies," another category to describe the contingent, mediated, interconnected, and less sequenced relationships among genres within and between activity systems.⁴⁷ "To account for variations across instantiations of a given genre, a more robust, ecological perspective is required, one that accounts for the dynamism and interconnectedness of genres."⁴⁸ This case study adds two more, "ecosystem" and

⁴⁵ Devitt (2004), *Writing Genres*, 15

⁴⁶ Bawarshi & Reiff (2004) *Genre*, 87; See also Bazerman's discussion of genre systems in *Constructing Experience* (31-38).

⁴⁷ Spinuzzi (2008), *Tracing Genres*, 41.

⁴⁸ *Ibid.*, 63.

“exosystem.” Below is a table outlining the various genre groupings from the literature, as well as discussion of two additional terms at the end of the table.

Genre groupings	Definition
Genres context	Set of all existing genres in a society or culture” ⁴⁹
Genre repertoire	Set of genres that a group owns, acting through which a group achieves all of its purposes, not just those connected to a particular activity” ⁵⁰
Genre system	Set of genres interacting to achieve an overarching function within an activity system” ⁵¹
Genre set	Sets of genres more loosely defined that are associated through the activities and functions of a collective but defining only a limited range of actions” ⁵²
Genre ecology	Sets of genres are part of a framework that accounts for how official and unofficial documentation genres are animated by and connected through contingency; how the documentation’s functionality is consequently decentralized, distributed across the ecology; and how ecologies of genres achieve relative stability despite their contingent, decentralized nature. ⁵³
Genre ecosystem	Spinuzzi’s and others’ use of “ecology” refers to the biological model that refers to the relationships of organisms to one another and to their physical surroundings. It could be argued, however, that “ecosystem” is an equally apt a term in some cases, particular technical and professional communications, i.e., a biological community of interacting organisms in conjunction/linked with their physical environment. In computer science, it is common to see ecosystem as a term used in some disciplines.
Genre exosystem	Here, we are able then to make another level of distinction. While there isn’t much different between an ecosystem and an exosystem (they can reach the same orders of magnitude, for instance), the difference is that the exosystem is a superimposed / support / oversight genre placed or laid on top of another system. Whereas the ecosystem grows / is grown from the inside-out, the exosystem is meant to monitor, incubate, grow, etc., from outside-in.

⁴⁹ Ibid., 54.

⁵⁰ Ibid., 57; for an additional discussion of genre repertoires, see also Orlikowski and Yates.

⁵¹ Ibid, 56.

⁵² Ibid. 57.

⁵³ Ibid., 63.

Whatever the sampling, by analyzing the communications environment/scene and writing situation, gathering genres artifacts, data on those artifacts, information about the processes, and so on, researchers can gain insight into the social roles and relationships, power dynamics, distribution of cognition and activities, and social construction of spacetime within different contexts, what Bakhtin referred to as a “chronotope,” a topography of typography over time.⁵⁴

4.3 GENRE TRACING IN NETWORKS

Genre tracing becomes important here because, as Spinuzzi points out, in this era of modernization in the form of digitization, there are whole ecologies (adding *ecosystems* and *exosystems*) of tools that have been and are being replaced by computers that can and can’t do the same job (e.g., slide rules, drafting equipment, mathematical formulas, and so on). Genres are vital to not just interfaces but information design, i.e., design how people think. Tracked forward or backward, genre tracing provides a history of communal work and problem-solving, an understanding of organizational boundaries, and a model of the genres’ ecological relationships and how those relationships have been altered.

Using network theory, specifically looking at networks through the two different lenses of not just activity theory, but actor network theory, Spinuzzi helps provide different ways of comprehending behemoth genre ecosystems, the hydras of the editorial world, some massive beasts indeed, called “hydras” [my term in quotations] because, as Spinuzzi helps us see, networks are often thought as one thing, but large companies are collections and conglomerations of smaller ones which are collections of smaller ones linked to other companies, all of different fields, some completely opaque, only providing channels of needed data and information to feed their own collective eddies of human, social, etc. capital.

The OSCIO is a network, so while the various agencies’ documentation shows their distinguishing features as they respond to the templates, it also shows the ethos and identity of the OSCIO in how it chooses to build that exosystem to meet agency needs.

To understand the documentation of each participating authoring agency requires mapping the network and understanding the power differential inherent in their networks, but genre tracing shows how work is mediated by genre collections on three levels of activity (see *macroscopic*, *mesoscopic*, and *microscopic* in the table below), as the work changes, so do the genres change with the activities ascribed to the work.⁵⁵

Level	Activity theory term	Genre conception	Application to superimposed genre exosystem, yes/no?
Macroscopic	Activity (cultural-historical unconscious)	Genre as social memory (Bakhtin, 1984, 1986), genre as shaping and shaped by sustained disciplinary activity (Bazerman, 1988; Yates, 1989),	Yes. Part of the exosystem must adapt a macroscopic element that accounts for social memory and sustained disciplinary activity of the genres that are superimposed. The OSCIO used social memory and established

⁵⁴ Bawarshi & Reiff (2010), *Genre*, (87).

⁵⁵ Spinuzzi (2008), *Tracing Genres*, 45.

		genre as a social action (Miller, 1984)	disciplinary genres to create its hybrid exosystem (see “Results section), itself a response to the recent, smarting pain of failed IT enterprise systems and taxpayer dollars lost to ungoverned tech.
Mesoscopic	Action (goal directed, conscious)	Genre as tool-in-use (Russell 1995, 1997), genre as constellations of strategies (Schryer 1993, 200), genres as tactics (Hovde, 2000)	Yes. Part of the superposition is to provide an overarching framework of genre artifacts which are themselves tools for completing the activity. There is immediate application and strategy in the genres in use as tools of the trade. As will be seen in the “Results” section, the OSCIO has recently shed a revision layer of artifactual template documentation.
Microscopic	Operation (habitual, unconscious)	Genre as coherent collection of habits (Spinuzzi, 2001), genre as operational rules (Engestrom, 1995; Russell, 1997), genre as structuring work (Bazerman, 1997), genre as distributed cognition (Freedman & Smart; Syverson, 1999)	Yes. Any genre superpositioning with an exosystem is reliant on this layer of activity as with the other two, but because of the grafted/nonnative nature of the exosystem, the unconscious isn’t as ever-present because, by nature, the genres are superimposed “over top,” or “from outside,” the native genre ecosystem that will ultimately house and sustain the IT enterprise system.

This makes it possible to trace not only the scope but also the history of problem solving in a community. In the OSCIO, we can trace the history of problem solving in the basic birth and evolution of Stage Gate:

- Before SG, the sampling of business cases was spotty and highly variable, but the state experienced costly setbacks, so it implemented new IT governance methods.
- The imposed “one size fits all” genres did well to resemble past/dominant genre paradigms, and the exosystem superimposed on the various state agency ecosystems seemed to have reined in the disparity and bring measured control.

- However, agencies differences in IT maturity and willingness to participate caused friction, and this caused the OSCIO to adjust its genre collections.

The sides remain in constant dialogue with one another. The problem solving made by different actors in the network can be tracked. The genres not only encompass but are also able to reflect to researchers the different activity states at each scope level of the organizational body.

On top of the three scope levels above, Spinuzzi also provides two aspects to genre tracing in general that are specifically compelling for studying genre exosystems superpositioned onto ecosystems:

- **Compound mediation:** Spinuzzi defines compound mediation as “the ways that workers coordinate sets of set of artifacts to get their jobs done.”⁵⁶ The dynamics of compound mediation is crucial to understanding how/if genres work when being superimposed, as the elements of the superimposed upon has its own history, origin, worldview, and ideological orientation. Genre tracing provides insights into how exosystems of superimposed genres do or do not jointly mediate the workers’ operations, actions, and activities.”⁵⁷
- **Systematic destabilizations.** Genre tracing can help lead us to examine how destabilizations in one level of the superimposed exosystem causes ripple effects in other scope levels, how the genres support and mediate activities and each other, and so on.

In the end, the exosystems of superimposed genres can be examined for health and stability, and they can also shine light on dispersed cognition and creative problem solving.

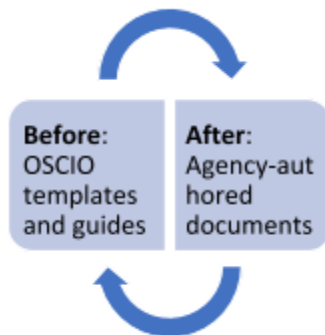
⁵⁶ Spinuzzi (2008), *Tracing Genres*, 49.

⁵⁷ Ibid.

5 RESEARCH METHODOLOGY

To better understand the nature and dynamics of superimposed genre exosystems, particularly those involved in large-scale projects, this case study analyzed qualitative and quantitative data, information, and knowledge gathered from Oregon’s IT project review process known as Stage Gate.

There are two primary datasets related to data gathering for superimposed genre exosystems from: *before* and *after artifacts*, or in the case of the Stage Gate ecosystem, the *genre templates* (before) and the *authored documents* (after). These are the respective terminal input and output data points in the development cycle, with the at-rest and in-motion components between.



Although encapsulated in time by the symbols on the page and the 1s and 0s on the file servers, these *before* and *after artifacts* tend not to be as static as they are “living” documents (i.e., flexible, working drafts, subject to modification), particularly in scenes and situations volatile to superimposed genres. In the case of the OSCIO Stage Gate documentation—which over the project lifecycle can span a decade—both the templates and the agency-authored documents change. As seen over both real and ideal time, they come to resemble reflections of the project’s nearly current state and collective mindset, and therefore reflect the evolving thought patterns meant to become repeated actions and behaviors from realigned attitudes. They also reflect the cycle of revision, which the state recently saw.

In the end, detailed in the sections below, while this case study was able to show evidence from both sides of the genre manifestation, before and after, artifacts are lacking in availability for both, much of it is yet behind closed doors, part of a larger ecosystem of relatively hard-to-access archives of source documentation that have been gathering volume on various state repositories since Stage Gate’s inception. The sections below outline pertinent background details of the research methodology, the data and information gathering process, and the applied frameworks of the analysis.

5.1 UNDERSTANDING, ASSUMPTIONS, AND CONSTRAINTS

Below are understanding levels, any assumptions made, and notable constraints on this research:

- Limited access to agency artifacts:** The Stage Gate process is not an openly published process or a retail print and/or digital distribution, whereby readers can freely access or buy publications at a point-of-sale location or online shopping cart. Government agencies are not mandated to share the *ins* and *outs* of their technical documentation, and with some exceptions, government agencies do not openly post their documents. Much of the writing, reading, and editing of these

documents occurs behind closed doors under contractual nondisclosure, only to be let into the public sphere after vetting by the organizations that had a part in producing them (DAS, OSCIO, LFO, the authoring agency, etc.). There are numerous reasons for this closed-door publication style, e.g., situations in which shared safety and security issues arise because of sensitive material. There also isn't usually high public demand for documents in the Stage Gate ecosystems, unless the project is high-profile. However, as result of the walled-in documentation, part of the preliminary research in this area of study is understanding where to find any traces of openly documented cases that use the Stage Gate genre. Because the documentation is not widely available and harder to find than most publications, this scene/situation clouds understanding of how aspects of superimposed genre affect local writing.

- **Moderate access to OSCIO templates, guidance, etc.:** A lack of agency-authored documentation does not prevent analysis and critique of the evolving SG genre itself (i.e., documentation in the form of OSCIO's templates, the repositories of the current genre encapsulations themselves). Much of the preliminary template documentation is readily available online at the OSCIO website; although even in this case, there is documentation available to agencies via a documentation management tool that the public does not have access to, such as project management plans. Again, the research is confronted by a siloed source of documentation to analyze.
- **Moderate past practitioner experience:** One of the primary informants of this case study that counters the constraints above is also a driver and sources of research bias of the OSCIO genre exosystem: a personal history as a writer, editor, and documentation specialist in the Stage Gate project review process. First exposure to writing for the state's project approval process came in the fall of 2016 during technical communication work for a private contractor consulting with a state agency moving through stage gates. Consultation in the SG process has been occurring intermittently since then in various roles on various business cases in the ecosystem. Thus, while primary research for this case study was initiated in the fall 2018 term, informal research of Stage Gate began much sooner than this and more from of a practitioner's logistical necessity for proper document delivery, rather than out of a theoretical curiosity. Care was taken to eliminate researcher bias, but assumptions made in this report are sometimes based on previous knowledge. Previous experience with the Stage Gate process is a notably important factor in this case study's assumptions, because previous knowledge of the ecosystem helped locate the superimposed genres in the exosystem and map them.
- **Sample research materials:** Given the above, the most important artifacts are yet unseen in the public sphere, only accessible via public records request. An official request for quote is pending with DAS and OSCIO. Only public artifacts and public materials curated for this case study are currently available. The hope with the latter, however, is to provide readers with a hands-on, hi-fidelity example of actual materials to provide insight on what other documents may look like and how a future analysis and evaluation might be structured.

5.2 DATA AND INFORMATION ELICITATION

The following is not an exhaustive list of Stage Gate sources, but sources used in this case study. Sources fell into the categories below, each within a range of general to specialized knowledge and authority⁵⁸:

⁵⁸ Categories based on / inspired by Ben Ballenger, *The Curious Researcher*, Third Edition, Allyn & Bacon / Pearson Education (Needham Heights, MA: 1994, 2001), 87.

1. Secondary research of publicly accessible databases:
 - a. Government documentation
 - b. Trade publications
 - c. Scholarly publications
 - d. General interest magazines and newspapers
2. Primary research based on interviews and correspondence:
 - a. Portland State University Library information specialists
 - b. Inquiries and public records request of, and correspondence with, the Department of Administrative Services (DAS), Office of the State Chief Officer (OSCIO)
 - i. Correspondence with DAS/OSCIO representatives (IT Governance Director, Senior Technical Advisors, and Business Analysts)

Below outlines the different literature available for review, as well as its role related to the SG process.

5.2.1 GOVERNMENT PUBLISHERS/PUBLICATIONS

There's no way to purchase Stage Gate documents like one would a book at a bookstore or a journal article online; however, using targeted search parameters reveals what information is publicly offered. The following state and federal online sources were included in the research scope:

- Using <https://usa.gov> to search every website ending .gov [elicits 1,000 results](#). [Adding OSCIO narrows it down to 200](#). There are a [number of materials relating to project management](#), including [OSCIO procedure guidelines](#).
- State web searches in search engines using the syntax below were also helpful in locating public artifacts, such as:
 - Using "site:Oregon.gov"
 - The state's old address which are different data stores "site:state.us.gov"
 - More specific search tools within these results, e.g., using target keyword phrases like "business case," "stage gate," and "SG."
 - Some of the most recent activity is from the OregonBuys division, which has recently posted a relative wealth of Stage Gate documentation artifacts: <https://www.oregon.gov/das/ORBuys/Pages/eprocurement-project.aspx>

In the end, scant artifacts in a data and information desert reveal the fact that government agencies have no mandate to post online in some depository system. Some material is shared, but little of it. Material must be requested from either DAS/OSCIO and/or the authoring agency directly. See below for more details on the governmental online sources reviewed during research.

5.2.1.1 Office of the State Chief Information Officer (OSCIO)

The first place to go for documentation on the SG review process is the OSCIO website. The majority of their materials are nested [within the OSCIO website](#). Within the OSCIO website is the Enterprise IT Governance Office, the office whose team not only helps identify and lead opportunities for a number of statewide architecture, shared service, and enterprise alignment, but also provides guidance for the public and agencies on the governance models of the SG process, its template and forms, and downloadable content/artifacts that can be used to create the needed deliverables, governance and

organizational structures, and supporting material for the SG process, FAQs, contact information, and more.⁵⁹

5.2.1.2 *Department of Administrative Services (DAS)*

DAS's website provides archived documents that help map and trace the genres through the networked SG process. The most notable are DAS statewide policy 107-004-130 (and PR), which are based on and reference Oregon Revised Statutes (ORS).⁶⁰ DAS also facilitates the new OregonBuys website, as noted above in the overview: <https://www.oregon.gov/das/ORBuys/Pages/eprocurement-project.aspx>.

5.2.1.3 *Oregon State Legislature (OLIS)*

The legislative documentation supporting the SG review process can be found on the Oregon State Legislature website.⁶¹ Using OLIS, users can search for and gain access to the House Bills and related ORS that spell out much of the procedures underlying the SG publishing process, including ORS 276A.200-236 and 279B.030, which are referenced by DAS policy 107-004-130 (and PR).⁶²

5.2.1.4 *Oregon State Library (OLS) Digital Collections*

Documents used in this case study were found in the Oregon Government Publications collection⁶³, which includes current and historical Oregon state government publications. These archived documents are maintained by the State Library of Oregon as part of the Oregon Documents Depository Program. They are for informational purposes only and hold no legal bearing in publishing them in this case study.

5.2.1.5 *Agency Websites*

When it comes to finding actual SG documentation created for the SG publishing process, the websites of the government agencies themselves are often the databases that contain publicized final versions of the SG documentation, which none are mandated to do.

5.2.1.6 *Areas of Restricted Access*

There are also other proprietary datastores/servers that were inaccessible at the time of writing because they require a government user ID and password, e.g., Project and Portfolio Management (PPM) tool, the official system of record for documents submitted to OSCIO during project oversight.⁶⁴

5.2.2 **TRADE PUBLICATIONS**

The name "Stage Gate" is a descriptive title, phrased this way for its four *stages* and the four *gates* at the end of each stage, but the name can be distracting and misleading for some. At its most basic, the "Stage Gate" process is simply a "software development lifecycle" called by another name and based largely on two internationally bestselling publications.

⁵⁹ See the OSCIO's primary "Stage Gate" page: <https://www.oregon.gov/das/OSCIO/Pages/StrategyStageGate.aspx>.

⁶⁰ See DAS policies pages: https://www.oregon.gov/das/Policies/107-004-130_PR.pdf and https://www.oregon.gov/das/Policies/107-004-130_PR.pdf.

⁶¹ See the Oregon Legislature's home page: <https://www.oregonlegislature.gov>.

⁶² See Oregon Legislature website: https://www.oregonlegislature.gov/bills_laws/ors/ors276A.html and https://www.oregonlegislature.gov/bills_laws/ors/ors279B.html

⁶³ See Oregon State Library Digital Collections website: <https://digital.osl.state.or.us/>

⁶⁴ Senior IT Portfolio Manager help agencies gain access to the PPM Tool and arrange for training. Correspondence with state agency representative (October 15, 2018).

5.2.2.1 *Project Management and Business Analyst Books of Knowledge (PMBOK & BABOK Guides)*

When drilling down into the SG publication structure, it is explicitly clear that DAS/OSCIO/LFO bases its approaches and methods on *PMBOK*'s and *BABOK*'s global standard for the practice of business analysis and project management:

- *Project Management Book of Knowledge (PMBOK)* published by the Project Management Institute (PMI)⁶⁵
- *Business Analyst Book of Knowledge (BABOK)* published by the International Institute of Business Analysis (IIBA)⁶⁶

PMI runs a popular program. As discussed in Clark and Phillips' *Inside Book Publishing*, backlist sales, especially reference titles like the *PMBOK* and *BABOK* account for a major proportion of PMI and IIBA sales, but Lightning Source reports POD sales from other self-publishers basing their book on the brand. Subscription, digital, and license structures are also more prevalent business models.⁶⁷ According to NPD/Bookscan, *PMBOK*'s sales internationally in 2018 were more than 57,000 copies sold, with *BABOK* hovering under 3,000, with a retail price of the two at anywhere from \$30 to under \$100.⁶⁸ With slight adjustments to morph with the Oregon IT culture, the Legislative Assembly schedule, the fiscal budget year, and other factors, these books form the backbone of the SG process and help tremendously in navigating the different types of main and supporting documents required in the volumes needed to produce a high-profile government enterprise system. Further research is necessary in understanding how sales have been affected given the fact that Oregon State government has built a whole industry of professionals around these publications.

5.2.3 *SCHOLARLY JOURNAL PUBLICATIONS*

Professional trade books, reference books, and textbooks about project management and business analysis are not the only non-consumer publishing that informs the SG process. Academic journal articles also focus on the project management and business analysis publishing genres/topics, but on a shorter editorial time scale and in a more focused scale and scope.

When analyzing a large-scale authoring process such as the SG publication process, the work of other theorists and theoretical models helped comprehend gargantuan, networked communication ecologies and the many forces at work within them that keep the whole publishing enterprise going.

When dealing with government systems, the SG documentation review process, for example, such systems of people, places, things, ideas, objects, and so on can be considered as a "discourse ecology," a relatively well-known the term/metaphor in composition studies, used to name how community members communicate, which James Porter defines as:

"a group of individuals bound by a common interest who communicate through approved channels and whose discourse is regulated [which] shares assumptions about what objects are appropriate for examination and discussion, what operating functions are performed o

⁶⁵ Project Management Institute, *A Guide to the Project Management Body of Knowledge, Fifth Edition (PMBOK)*, Project Management Institute, Inc. (Newtown Square, Pennsylvania: 2013).

⁶⁶ International Institute of Business Analysis, *A Guide to the Business Analyst Book of Knowledge, Third Edition (BABOK)*, International Institute of Business Analysis, Inc. (Toronto, Ontario, Canada: 2005, 2015).

⁶⁷ Giles Clark and Angus Phillips, *Inside Book Publishing*, Routledge (New York: 1988, 2014), 93.

⁶⁸ DecisionKey search of USBookScan year-to-date (YTD) point-of-sale (POS) data, November 19, 2018.

those objects, what continues ‘evidence’ and ‘validity,’ and what formal conventions are followed.”⁶⁹

Porter’s metaphor of ecologies, although biological, matches well with Spinuzzi’s actor networks. Using the different network models discussed by Spinuzzi as heuristics to help comprehend and document the artifacts at play in the SG process, what seems at first a tangled web of SG actors and connections becomes a traceable—albeit still complex—actor network that includes:

“the material ways in which the sociotechnical system constrains, polices, and sets limits for itself, e.g., checklists, emails, words repeated to oneself, strings tied around fingers, stories told in the breakroom, or procedures imposed by management.”⁷⁰

All of the above forms of documentation happen in the SG process, from the unconscious string around the finger, to the planned quarterly report, all of it falling into a model that encompasses the entire SG communication circuit. Armed with these tools/lenses of analysis, new insights are possible that weren’t seen before, which also opens room for new models that help solve inefficiencies or other business problems plaguing the system (or even plan ahead for various types of documentation).

5.2.4 GENERAL INTEREST PERIODICALS AND NEWSPAPERS

What the OSCIO documentation doesn’t reveal, but what network theorists speak to in their work, e.g., Spinuzzi above, is the sociopolitical and cultural activity occurring around the SG documentation process itself. Local reporting entities fill the knowledge gap with journalistic contributions to help add more layers of nuance around the technical documentation itself, including pieces from the *Willamette Week*, which wrote a story, for example, on former Oregon CIO Alex Pettit’s resignation⁷¹, and the *State Scoop*, which had a follow-up piece on Pettit’s new job elections for the late Secretary of State, Dennis Richardson.⁷² What’s more, the agencies themselves, the ones creating the documentation, are caught up in their own politics and culture of competing stakeholders. There are whole sections of the *PMBOK* that deal with managing the ripple effects of change that occur as a result of a new IT system, and but that is out of the scope of this case study.

5.2.5 PRIMARY RESEARCH AND CORRESPONDENCE

While the basic latticework templates of the OSCIO genre ecosystem are present online, the OSCIO does not publish the completed forms. This information can at best only be distilled through other document artifacts that report and therefore distill pooled data and information of the actual evidence gathering process (e.g., discovering how much money agencies spend on vendors to create SG documentation).

⁶⁹ Porter, James. “Intertextuality and the Discourse Community.” *Rhetoric Review*, 5, no. 1 (1986), 38–39, doi: 10.1080/07350198609359131.

⁷⁰ Clay Spinuzzi, “Who Killed Rex? Tracing a Message through Three Kinds of Networks,” *Communicative Practices in Workplaces and the Professions: Cultural Perspectives on the Regulation of Discourse and Organizations*, Mark Zachry and Charlotte Thralls (eds.) (Routledge, 2007), 46–47.

⁷¹ Nigel Jaquiss, “Oregon’s Chief Information Officer, Alex Pettit, Resigns: State’s top tech official helped settle Cover Oregon litigation, but struggled with new phone system,” *Willamette Week* (April 9, 2018), <https://www.wweek.com/news/2018/04/09/oregons-chief-information-officer-alex-pettit-resigns/>.

⁷² Colin Wood, “Outgoing Oregon CIO hired by state secretary’s office,” *State Scoop* (May 4, 2018), <https://statescoop.com/outgoing-oregon-cio-hired-by-state-secretarys-office/>.

5.2.5.1 *Initial OSCIO correspondence*

In order to develop a better understanding of the current and future state of the SG publication process and its ever-evolving documentation, state representatives and subject matter experts (SME) who deal with SG every day were emailed for more information.

Using the contact information on the OSCIO website and other websites, the help desk number at the Enterprise IT Governance Office was called, and two representatives of the office, Senior IT Portfolio Managers, Darrell Landrum (works with agencies that work with natural resources) and Heidi Zinsmann (works with administration agencies, boards, and commissions).⁷³

5.2.5.2 *Portland State University Library*

Approaching the Government Documents & Social Sciences Librarian with the question of where to best locate artifact sources regarding the *Oregon Department of Administrative Services (DAS)* and *Office of the State Chief Officer (OSCIO)*, with a particular interest in the latter's Stage Gate process, there wasn't much new to report except vet the process and confirm that a records request might be the best route for the research. Materials of the Stage-Gate nature aren't circulated through the depository system, so libraries don't have them in their collections. For DAS, there [are materials PSU has access in print and digital formats](#). This includes materials at partner schools (interlibrary loan program), and [only about 69 of the listed materials are immediately accessible at PSU](#). Of these, [only 3 relate directly to the OSCIO](#). It wasn't surprising that the library didn't have these materials, since the OR state depository system is fairly limited: the university only receives materials if they were deposited with the State Library, which in turn sends PSU and other state university libraries a copy. If agencies don't deposit with the State Library, other university libraries don't receive it. In some cases, like ODOT, PSU has an arrangement where ODOT sends PSU documents directly, though this is a "largely interpersonal and pell mell arrangement."⁷⁴

5.2.5.3 *OSCIO public records request*

Governmental publications, like most publications, can be purchased for the bookshelf or file folder. Costs passed to the consumer are not production costs, but the editorial costs of migrating documented data and information into the public sphere. The documentation pulled from the archive must then be vetted by the agency that authored it. The whole process incurs costs of time and materials.

An official public records request from made of DAS/OSCIO. The OSCIO IT Governance Director, Jennifer de Jong, was notified of the request via DAS, pursuant ORS 192.324(2), and the request has been assigned to an OSCIO Business Analyst. The agency offered a small subset of 6 (out of 26 business cases from state agencies last year) that would resemble representative echelons of different types of business cases submitted last year (based on maturity). They're in the process of quoting for cost associated with vetting artifacts for any sensitive data/info, notify the state agencies, and archive the records made public.

5.3 RHETORICAL GENRE ANALYSIS

⁷³ DAS/OSCIO, "Senior IT Portfolio Managers," Department of Administrative Services, Office of the State CIO (accessed November 15, 2018), <https://www.oregon.gov/das/OSCIO/Pages/StrategyOfficers.aspx>.

⁷⁴ Correspondence with PSU Government Documents & Social Sciences Librarian (April 4, 2019).

Building off the informants covered in the literature review, two complementary research methodologies were used to locate, analyze, and evaluate a small Stage Gate artifact collection—rhetorical genre analysis and tracing genres through networks.

5.4 RHETORICAL GENRE ANALYSIS, GENERAL

Speakers and writers make rhetorical choices to accomplish their ends with language. This includes the type, tone, timbre, etc. of what we say, as well as how we say it, how we engage our audience, how the logic of our ideas is presented, what kinds of definitions and examples we give, how many words we use, and so on. The ability to read and evaluate genres gives researchers the tools to analyze and interpret superimposed genre exosystems. In this research, the methods outlined by Devitt, Rieff, and Bawarshi were used. The following outlines the core elements of inquiry into the unique nature and dynamics of the scene/s, situation/s, and exogenres.

5.4.1 COLLECTED SAMPLES OF THE GENRE

Using the research methods described in the methodology section, this case study sought out two types of document artifacts necessary in seeing the effects of superimposed genres: OSCIO templates (before) and agency-authored texts (after), specifically business cases from the first or second stage gate to have a common corpus of text to compare against.

5.4.2 IDENTIFIED SCENES, SITUATIONS, AND GENRES

Certain questions about the larger scene and specific situation in which the genre is used had to be answered and better understood, questions such as:

- Setting: Where do the impositions of this genre appear? How and when is a superimposed genre transmitted and used in the ecosystem? With what other genres do genres of imposition interact?
- Subject: What topics, issues, ideas, questions, etc., do superimposed genres address? When agencies use this genre, what is it that they are interacting about?
- Participants: Breaking from the traditional “stakeholder” terminology to use more editorially centered language, who uses superimposed genres?
 - Writers: What many agency writers and hired consultants write under the superimposed genre? What roles to they perform? What characteristics to they possess? Under what circumstances do they write? Are they clear, rushed, vague, something other? Which agencies need writers and which don’t?
 - Editors: Who edits the agency-authored material at the agency and then at the OSCIO, LFO, and elsewhere? What power do editors have? Under what circumstances do they edit? Are they rushed, not know enough, other?
 - Readers: Who reads the texts of the superimposed genres? What types of audience are the primary, secondary, tertiary, etc., readers and what roles do they perform, e.g., primary readers, gatekeepers, review boards? What characteristics must readers of superimposed genres possess? Under what circumstances do readers read superimposed genres? Are they rushed, in a boardroom, under pressure, other?
 - Publishers: Who ultimately publishes the document? In the case of the Stage Gate, who are the gatekeepers?

- Purposes: Why do writers write under superimposed genres, and why do readers read this writing? What purposes does the genre fulfill for the people who use it? How many people does it affect?

5.4.3 IDENTIFIED RHETORICAL PATTERNS IN THE GENRE'S FEATURES

Content: What type of content is typically included in the superimposed genre, and what is excluded? How are data and content treated, and what examples are used? What counts as evidence?

- Rhetorical appeals: What rhetorical appeals are used? What appeals to logos, pathos, and ethos are there?
- Structures: How are text structured? What are their parts and how are they organized?
- Formats: In what formats are the superimposed genre presented? What layout or appearance is common? How long is a typical text in this genre?
- Sentences: What types of sentences do texts in the genre typically use? How long are they? Are they simple or complex, passive or active? Are they sentences varies? Do they share a certain style?
- Diction: What types of words are most common? Is a type of jargon used? Is slang used? What is the voice?

5.4.4 IDENTIFIED RELATIONSHIP OF RHETORICAL PATTERNS TO GENRE, SCENE, AND SITUATION

What do these rhetorical patterns reveal about the genre, its situation, and the scene in which it is used? Why are these patterns significant? What can be learned about the actions being performed through the genre by observing its language patterns? What arguments can be made about these patterns?

- What do participants have to know or believe to understand or appreciate the genre?
- Who is invited into the genre, and who is excluded?
- What roles for writers and readers does it encourage or discourage?
- What values, beliefs, goals, and assumptions are revealed through the genre's patterns?
- How is the subject of the genre treated? What content is considered most important? What content, either topics or details, is ignored?
- What actions does the genre help make possible? What actions does the genre make difficult?
- What attitude toward readers is implied in the genre? What attitude toward the world is implied in it?

5.4.5 CRITIQUE THE SUPERIMPOSED GENRE

The next step after analysis is evaluation. There are several approaches to critiquing a genre.

- What a critique of genre might look like
- How some genres may not work equally well for everyone within certain scenes
- How genres change as the needs of their users and their scenes change
- What happens to scenes of writing when we change the genres that exist and are used within them.

Some questions for critiquing:

- What does the genre allow its users to do and what does it not allow them to do?

- Whose needs are most served by the genre? Whose needs are least served?
- In what ways does the genre succeed the most? In what ways does it fail?
- Does the genre enable its users to represent themselves fully?
- Does the genre effectively accomplish what its users intend it to do?
- Does the genre limit the way in which its uses can do their work?
- Does the genre create inequalities among its users that lead to imbalances of power?
- Does the assumptions that the genre reflects privilege certain ways of doing things?
- Do those privileged ways of doing things run counter to the supposed objective of those who use it and the scene in which it is used?
- Does the genre allow its user to do certain things at the expense of others? If so, at what cost?

5.4.6 GENRE COLLECTION

The data gathering process ultimately culled two document repositories: OSCIO templates and agency-authored texts.

- OSCIO templates: Embedded on the DAS/OSCIO website via the “Stage Gate” landing page: <https://www.oregon.gov/das/OSCIO/Pages/StrategyStageGate.aspx>. Also used were documents from DAS’s OregonBuys page: <https://www.oregon.gov/das/ORBuys/Pages/eprocurement-project.aspx>.
- Agency-authored texts: After using the above and approach and methods, business cases from varying Oregon state agencies were then sampled and documented. Of these, 6 of 14 were pre-SG, and the remaining 8 were post-SG.
 - The pre-State Gate artifacts’ contents were analyzed for similarities and differences.
 - The Business Case template was the analyzed using the methods above.
 - Of the remaining SG documents, all share a peculiar section, the “Consequences of the Failure to Act,” a subsection in the business case that represents the culmination of the argument that has involve description, analysis, interpretation, and evaluation of the costs, benefits, risks, and alternatives. Using Thompson’s capital model and the two new categories, the respective “Consequences” sections were color-coded depending on what rhetorical aspect of capital they appealed to.

5.5 NETWORK THEORY

As discussed in brief above, most genre theories these days align in broad terms along the tenet that genre is inextricably linked to social action, particularly in RGS but by most well-known genre traditional globally. There are many theoretical models that help frame genre research. While activity theory (AT) is one theoretical socio-genre model (discussed in the “Literature Review” above), so is actor network theory (ANT), see below.

5.5.1 ACTOR NETWORK THEORY

Activity theory is not the only theoretical framework to use to model the genres of large organizations and networks. Five years after *Tracing Genres*, in *Network*, Spinuzzi would expand the conversation with

actor network systems. He helps define the components of a network and what elements are at play in these organizations.

All networks are:

- Heterogeneous
- Multiply linked
- Transformative
- Black-boxed

But they can be modeled differently:

- Activity network (woven)
- Actor-network (spliced)

Actor-networks are “techno-economic networks”.⁷⁵ Actor-network theory (ANT) studies the political-rhetorical work among people, orgs, and non-human actants alike, and the same concepts are used for all entities in the network.⁷⁶ Activity theory (AT) studies the activity nodes in “multidimensional network of activity systems” (Engestrom, 1993, p. 13). ANT studies how power works in these systems; AT studies how people work in these systems (Spinuzzi, 2008, 42).

Each genre in the OSCIO exosystem also emerges from the interaction of several actor-networks, or techno-economic networks.⁷⁷ Complementary to a genre analysis, actor-network theory (ANT) diagramming models can help map/trace the political-rhetorical work among people, organizations, and non-human actants, i.e., all those which use the genres in their network for some purpose.⁷⁸ ANT can also help show how power works in the systems that come together to create and evolve the genres.⁷⁹

Mapping and studying networks of superimposed genre exosystems sheds light on partitioned, siloed networks that would remain otherwise dark and secluded, thereby providing some enlightenment of these obfuscated boundaries. TC research also keeps a tab on what is known, or thought to be known, just what is known to be unknown and unknown unknowns.

5.5.2 OBJECT-ACTOR NETWORK THEORY

Liza Potts helps us build out more of the logistics for the actor networks. Potts also helps show us a model for temporary relationships that must be built during emergencies, or reactively, and this is an important component of the OSCIO, which itself is not a permanent relationship during the build cycle, but in many ways involves myriad temporary relationships over set periods of time. The primary diagramming model borrows from Potts’ “Object-Actor” network (see figure 1. below)⁸⁰:

- Object*
- Event

⁷⁵ Latour (1987), *Aramis*, 180.

⁷⁶ Spinuzzi (2008), *Network*, 40.

⁷⁷ Latour (1987), *Aramis*, 180.

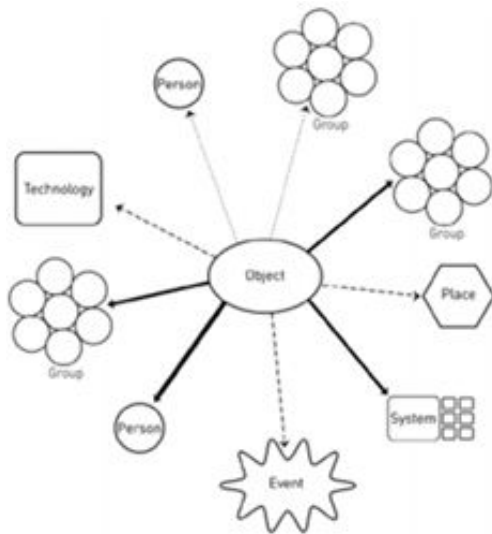
⁷⁸ Spinuzzi (2008), *Network*, 40.

⁷⁹ Ibid. 42.

⁸⁰ Potts (2008), “Diagramming with Actor Network Theory,” 6.

- Group
- Person
- System
- Place

*Each object in the network, in this case the OSCIO exogenre, has temporary and permanent links to it.



While the object-oriented actor network model could provide valuable for the OSCIO, but there is still a need for both activity, actor, and operational networking theories to provide a holistic view. And there are, of course, the industry standard network diagrams, Project Management Institute's *BABOK* and *PMBOK* guides (se also PMI's IEEE Software Extension).

5.5.3 PROJECT MANAGEMENT INSTITUTE

This paper would be remiss if the industry standard for the OSCIO SG wasn't referenced, please see the PMI's *Business Analysis Book of Knowledge (BABOK)* and *Project Management Book of Knowledge (PMBOK)*, which are the key informants to Oregon's unique superimposed genre exosystem (exogenres).

6 RESULTS & FINDINGS

This case study sought to better understand Stage Gate’s story as a superimposed genre exosystem: past, present, and future. Highlights from the research are discussed below in preliminary results and findings sections. Some of these sections are expanded in a corresponding appendix.

6.1 OVERVIEW OF RESULTS

A lot remains to fully comprehend Stage Gate and understand the benefits and challenges of its process, tools, information architecture, etc. Data and information are hard to get, are time intensive to prepare, and cost money. Even with artifacts from DAS/OSCIO, participating agency processes are heterogenous, multiply linked, interdependent, and, worse, black-boxed networks that silo data and keep it secured. To make matters more complex, each agency has its own public records request. The sparse amount of data available for analysis and a short research timeline represents a limited data foundation from which to draw rock-solid conclusions. The keys to successful projects remain elusive. There is yet to be developed a one-to-one ratio of questions posed in the methodology versus answered completely and satisfactorily by the analysis.

However, preliminary findings and results from the analysis of available content have helped tremendously in the conceptual design of future research in this area, and even given the Spartan quantitative sampling size and subsequently minimalist results, the qualitative insights made on the process just by nature of tracing and mapping genres provide some applications for agencies and technical communication practitioners in the field, i.e., those editing and writing for Stage Gate. Advances have also been made in this case study on evaluations of content and workflows that have led to short- and long-term observations for the state to consider moving forward, the two most notable findings falling into short- and long-term categories:

- **Short-term:** After a full evaluation of template artifacts, there are several higher- to lower-order areas of concern and actions that the state can take with its templates and other guidance materials. Editorial issues range from substantive edits to the text and use of more examples, to the dire need for a round of proofreading of materials, in particular new content produced by the state this year and the business case template.
- **Long-term:** It’s not clear if there exists an evaluation of benefits and challenges to changing the information architecture of the state’s document workflow from document-centric tools to component-based content management system (CCMS) architectures; however, breaking free of the document-as-repository approach and venturing into CCMS, could make project portfolio management of the exogenre more adaptable to the local ecosystems upon which the exogenres are superimposed, helping to alleviate issues brought up in the last Secretary of State audit, namely that “oversight review lacks scalability for projects of different sizes, risks, and complexities, which may cause inefficiencies and frustration.”⁸¹

The sections below outline these and other general findings that arose from the case study.

⁸¹ Oregon Secretary of State (2018), “Significant Cost Savings Can Be Achieved by Modernizing Oregon’s Procurement Systems and Practices,” 13: <https://sos.oregon.gov/audits/Documents/2018-45.pdf>.

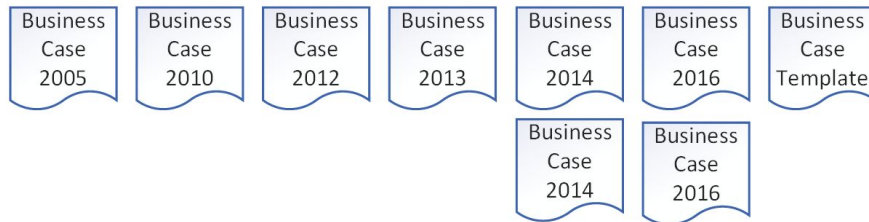
6.1.1 MATERIALS GATHERED DURING ELICITATION

Even with a methodological design, there were the realities of artifact availability and other factors to contend with. This case study was able to cultivate and study only a small collection of artifacts along a timeline to begin to understand the size, scope, and complexity of the story behind the OSCIO exogenre system, (how it is superimposed on agency ecosystems, what the back and forth has been, etc.).

Looking at the history of Stage Gate, the story of the data can be broken into four chapters: (1) the relatively distant past, before State Gate, (2) the recent past, after the birth of Stage Gate (3) the very recent past, this year's new documentation efforts, and (4) then evolutionary pathways on the Stage Gate exosystem horizon. The list below expands on these different phases along the timeline.

1. **Before Stage Gate (pre-2014/2015):** Research and discovery studied old artifacts that predated the rise of Stage Gate. Of the documentation reviewed were 4 artifacts (business cases) with publication dates predating House Bill 3099, from 2005, 2010, 2012, and 2013, respectively, the latter of which is where the first sign of a unique section to Stage Gate, "Consequences of Failure to Act" (CFA) appears (2013) and, on closer examination, resembles a potential parent BC document to the Stage Gate BC template. CFA becomes one of the major tracking links for the exogenre, but not the only one.
2. **After Stage Gate (post-2014/15):** The case study then turned to artifacts created after Stage Gate implementation. This case study highlights 5 artifacts (business cases):
 - a. 1 BC template from DAS/OSCIO. This includes a full genre analysis performed on the most current business case template.
 - b. The potential parent business case document from 2013.
 - c. 4 other agency-authored BCs: 2 BCs from 2014 and 2 BCs from 2016.
 - d. This section concludes with a line-level content analysis of the 5 agency-authored BCs, studying and charting each of their CFA section.
3. **Today's Stage Gate (2019):** Quite recently, DAS/OSCIO and the LFO revised the Stage Gate document list and parts of the guidance materials. While time did not allow for a full analysis of the changes, the evolution of this documentation is important for this case study, as it shows the evolution of an exogenre in near-to-real time, and notable areas have been pointed out in this case study that speak well to the evolution of the superimposed exosystem.
4. **Future Stage Gate (post-2019):** After being brought up to the present, reflecting on the paths of the past, the case study looks to potential changes on the Stage Gate genre horizon. The results of analysis point to the need to devise more complex template structures than a "one size fits all" documentation approach. This represents a shift from document-centric information architecture to a data/info architecture that is component-centric, topic-based, singled sourced.

The figure below lists the different artifacts. The sections that follow expand on the sections above, as well as plot how business case document fit together chronologically.



6.1.2 ORIGINS OF THE BUSINESS CASE

There are many genres in the Stage Gate exosystem, not just business cases, but also project management plans, project variance reports, and numerous other types of genres that fit into the oversight and project development process (see the [“Stage Gate Document List”](#) on the OSCO website). All of the above are worthy of study because some, if not all, of their components are connected (e.g., the charter is the seed document for the project management plans, as just one example). This case study focused on analyzing primarily the business case (BC), however, because of its social reach, as well as that it fit the timeline scope for this preliminary research. BCs were also notably easier to find more than one of across the timeline spectrum compared to other Stage Gate artifacts, the majority of which are hidden behind digital walls not accessible to the public or research, save a records request and payment for government officials time and materials (save also the OSCIO document list mentioned above, as well as the [OregonBuys website](#)).

In Stage Gate, business case documentation is used collaboratively throughout the development cycle. The BC is a widely used genre in professional settings in and outside of Oregon. Akin to a recommendations report, a BC reports to organizations the research taken to understand what alternatives the agency faces procuring, building, and using an enterprise system. This provides decisions makers, or gatekeepers in the state’s case, in an informed decision-making position. What distinguishes a business case from a recommendations report is that the BC content is geared heavily toward blending the business workflows and technical requirements and specifications of a complicated IT enterprise system with financial modeling to place on top of recommended alternative/s. In the case of Stage Gate, agencies are asked to develop business and technical requirements and financial models for at least two of the alternatives that have been identified. Models are composed of time and materials required to develop some sense of the “total cost of ownership” (TCO) over a set amount of time, one decade typically, taking into consideration T&M for development and implementation, and the beyond into operations and maintenance.

Business cases are a struggle for agencies for the first stage, specifically justifying the project through a business case. “This takes lots of research and time looking at market research, benchmarking, ROI, value added, requirements, risks and alternatives. There’s also a strategic planning gap that should drive the business case but a lot of the time it is viewed from an IT perspective that they have an aging system that needs to be replaced.”⁸² What also sets the Oregon BC apart from others is its particular organization of components, as well as its personal “quirks,” including its “Consequences of Failure to Act” section at the document’s end.

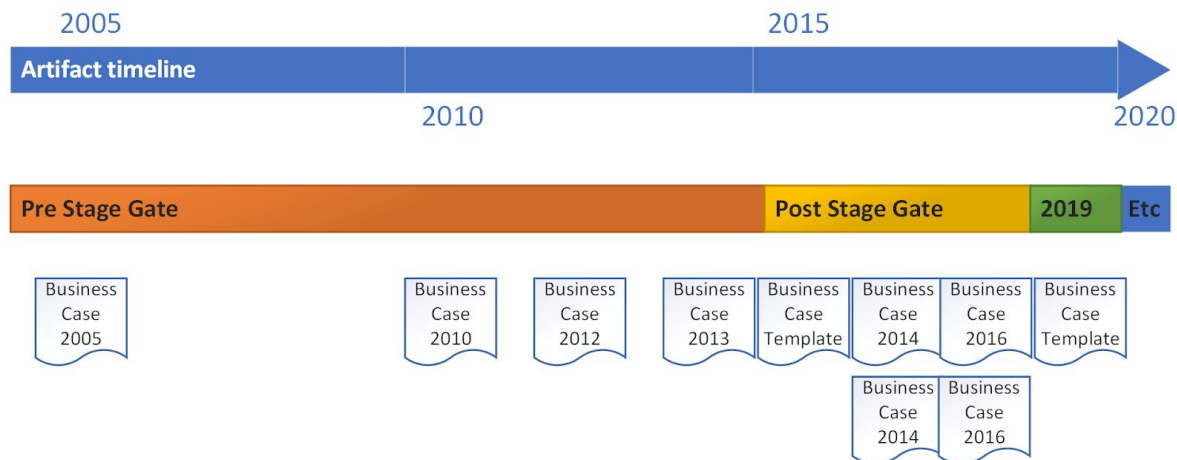
⁸² Correspondence with OSCIO (November 2018)

6.1.3 CONSEQUENCES OF FAILURE TO ACT

In all the analysis, the thread of the story of Stage Gate—the quick rise of an exogenre—can in many ways represented/symbolized by the story of a single section in the business, called “Consequences of Failure to Act” (CFA). In the end, watching the CFA section over 6 years of development (via analyzing snippets from artifacts that are connected to the CFA), the CFA turns into a type of signature of the Stage Gate business case, like a blip on the genre radar that helps track the relatively new genre. Tracing the CFA identifies not just Stage Gate’s potential origins (it can be used to trace in parent document/s), but it can also be used to forecast the next generation of Stage Gate exogenres. What does the fate of the CFA section, its potential survival or demise tell the story of Stage Gate? In the beginning, the blip on the radar appears and travels with the genre for years, but the CFA blip has recently started to fade with the changing writing environment and evolving exosystem.

6.2 TRACING THE BIRTH OF A GENRE

Stage Gate burst into the genre scene, relatively speaking, propelled by the power of legislative action.



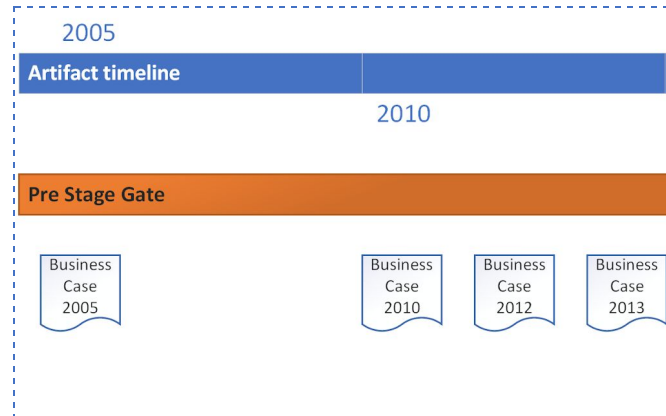
1. **Before Stage Gate (pre-2014/2015):** The relatively heated pre-State-Gate years (red bar), followed by the crescendo to House Bill 3099 and Stage Gate (2014/2015).
2. **After Stage Gate (post-2014/15):** This brought alignment, order, and, perhaps most importantly, oversight to the IT enterprise ecosystems of each government agency, the start of a cooling, alignment phase (orange bar).
3. **Today’s Stage Gate (2019):** This is followed by a revision this year to address more frictions and cool the relative internal physics of the exosystem (2019, green bar).
4. **Future Stage Gate (post-2019):** The timeline ends with a with the expectation of even further cooling of the genre into a stable, recurrent social action (blue bar, 2020 and beyond).

While cooling might represent stability from relative chaos, it also represents possible a calcitrant hardening that doesn’t allow for easy adaptation in future *genreations* (portmanteau of “genre-generations”). With 2020 changes on the horizon, such as the new Chief Data Information Officer actions taking effect and the data sharing mandate coming to pass January 2020, it’s hard to say whether the scene will heat up again or continue to cool. The following sections take on analysis of the superimposed genre exosystem in the four phases discussed above.

1. Before Stage Gate (pre-2014/2015)
2. After Stage Gate (post-2014/15)
3. Today's Stage Gate (2019)
4. Future Stage Gate (post-2019)

6.2.1 BEFORE STAGE GATE (PRE-2014/2015)

Taking 4 artifact business cases from 2005, 2010, 2012 and 2013, and then comparing their content and organization against the official Stage Gate content and organization required, it was found that while the word choice and organization differed somewhat, the essence of most artifact content and organization closely resembled one another. All follow loosely the organization of a technical research report that outlines alternatives and recommendations for business proposals related to IT systems. Today's Stage Gate BC, therefore, is organized much like the business cases of Oregon's past and follows the technical recommendations report format.



These results from a mere 4 BCs are not enough to make any conclusive statements one way or the other, but they seem to suggest somewhat—and research still needs to confirm/prove this decisively—that DAS/OSCIO used high-level, well-written, successful business cases of Oregon's past to model the Stage Gate BC exogenre. In other words, these few artifacts show that the resemblance to the Stage Gate organization wanes the further back in time the BC was published. For example, Agency C, the 2005 BC, doesn't include some sections that would be common later that decade, such as the "Problem or Opportunity." While the piece resembles the more modern business cases in the Oregon ecosystem, it also doesn't resemble the structure of today's business cases in distinct ways (see table before for details).

Looking at BCs closer to the time leading up to Stage Gate, these business cases more closely resemble the Stage Gate BC. Agency A, for example, the 2012 BC, has a "Problems & Challenges" in one section and "Opportunities" in another; while the sections are different and the components different (which matters), nonetheless, both sections are there, as opposed to the lack of them in the older BC from 2005 mentioned in the paragraph above. It should also be noted that these newer BCs are coming from agencies which are well-known to be technically mature and active in IT shared IT projects in the state, e.g., the Department of Health and Human Services and the Department of Transportation.

Then, the "Consequences of Failure to Act" section unexpectedly appeared in the 2013 business case. This was one of the surprises in the findings: the existence of a CFA section pre-Stage Gate. Upon closer analysis, many of the sections that that BC resemble, and seem to be informants of, what essentially becomes DAS/OSCIO's template (see appendix for a comparison of artifacts). The CFA section is rare among business cases, and seemed solely a Stage Gate invention, but appearing in a 2013 BC (1 year prior to State Gate), this hints at a possible parental relationship between this BC and Stage Gate.

- Agency A: https://www.oregon.gov/oem/Documents/OEM_Business_Case_Analysis.pdf

- Agency B: <https://www.oregon.gov/DHS/ABOUTDHS/DHSBUDGET/20132015%20Budget/DHS%20Modernization%20Business%20Case.pdf>
- Agency C: <http://library.state.or.us/repository/2010/201007280947233/index.pdf>
- Agency D: <https://digital.osl.state.or.us/islandora/object/osl%3A8313/datastream/OBJ/view>

Below is a table that looks at the overall organization of the four pre-State Gate BCs against the BC template structure devised for Stage Gate. The table uses color-coding to show how level-1 and level2 headings are similar and different (color = similar) the overall trend being a divergence from Stage Gate the further back in time, suggesting that Stage Gate is modeled after preexisting genres in the system.

H#	Stage Gate business case template sections	Agency A (2013) similar sections	Agency B (2012) similar sections	Agency C (2010) similar sections	Agency D (2005) similar sections
H1	Executive Summary	Executive Summary	Executive Summary	Overview	Executive Summary
H2	No H2s	No H2s	No H2s	No H2s	No H2s
H1	Purpose & Background	Purpose & Background	Purpose	Background	Introduction
H2	Purpose, Background, Stakeholders, Impact	Purpose, Background, Stakeholders, Impact	No H2s	No H2s	Subject, Purpose, Disclaimer
H1	Problem or Opportunity Definition	Problem or Opportunity Definition	Problems, Challenges & Opportunities	N/A	N/A
H2	Problem, Opportunity, Goals, Statutes	Problem, Opportunity, Goals, Statutes	Problems & Challenges, Opportunities, Desired Business Goals and Objectives	N/A	N/A
H1	Alternative Analysis		Alternatives & Financial Analysis	Alternatives Evaluation	Assumptions & Methods
H2	Assumptions, Selection Criteria, Alternatives Ranking, Solution Requirements, Alternatives Analysis of Cost, Benefit, and Risk	Assumptions, Selection Criteria, Alternatives Ranking, Solution Requirements, Alternatives Analysis of Cost, Benefit, and Risk	Alternatives, Assumptions, Costs, Benefits, Risks, Staffing Model, Potential Savings, Improvement Metrics, Cost Assumptions	Cost, Need, Risk	Overview, Assumptions, Scope & Boundaries, Business Approach, Soft Costs & Benefits, Sensitivities, Risks, Dependencies & Contingencies Analysis
H1	Conclusion & Recommendations	Conclusion & Recommendations	Implementation Approach, Timeline & Recommendations	Recommendation, Implementation Challenges (Risks)	Conclusions & Recommendations
H2	Conclusions, Recommendations	Conclusions, Recommendations	Alternatives	Critical success factors	Conclusions, Recommendations

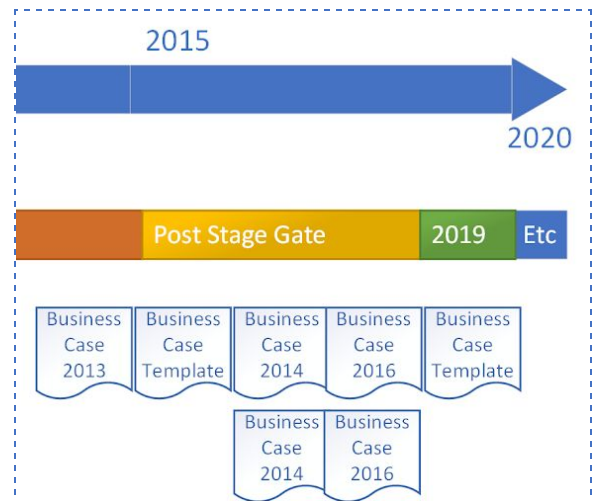
	Consequences of Failure to Act*	s, Consequences of Failure to Act*			
	Date published: 2015:	Date published: 2013:	Date published: August 28, 2012	Date published: July 28, 2010	Date published: December 16, 2005
<-Alignment with Stage gate		<-Time		Misalignment with Stage Gate->	

Note: The highlighted text represents the potential parent-child match. The appendix materials were not included in the chart above, but the supposed parent document from 2013 does have similar appendix material to the template requirements and specifications.

6.2.2 AFTER STAGE GATE (POST-2014/2015)

5 artifacts (business cases) the DAS/OSCIO business case and agency-authored business cases available to the public from 2013, 2014, 2014, and 2016. A full genre analysis was performed on the template and presented in this case study, as well as a line-level content analysis of the agency-authored business cases, studying and charting each of their final sections, all of which are titled per the template “Consequences of the Failure to Act.”

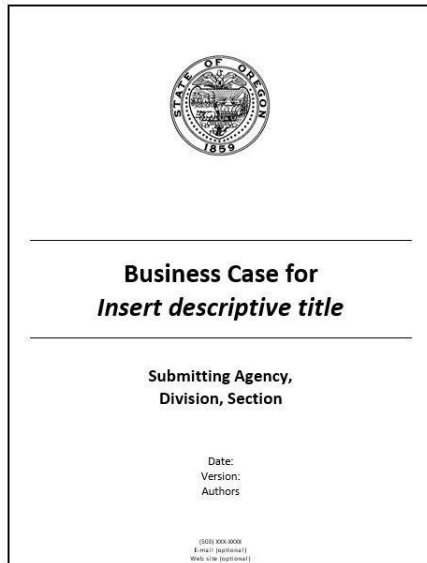
1. DAS/OSCIO busienss case tempalte artifact analysis (2 instances but 1 document, essentially)
2. Agueny-authored busienss case artifacts analysis (5 documents)




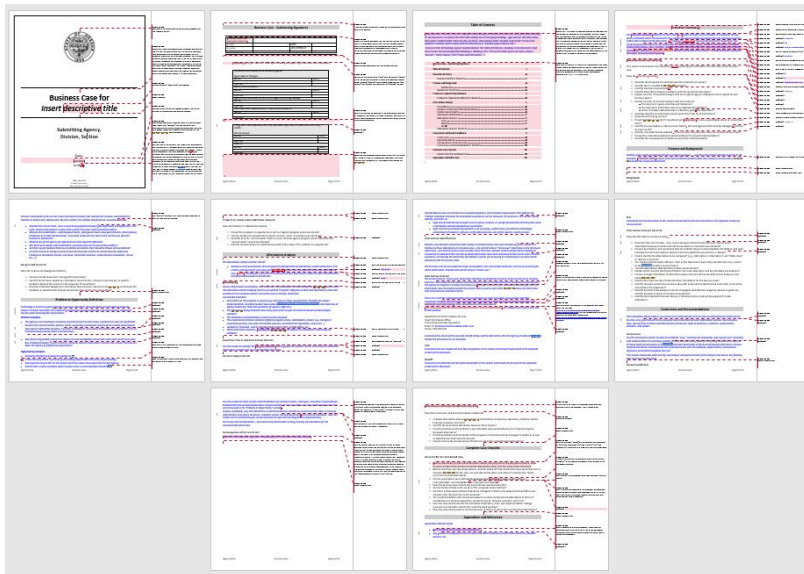
The sections below expand on the list above.

6.2.2.1 Template artifact analysis

From an editorial perspective—referencing both the RGS and Sydney genre schools, the latter of which is geared toward the evaluation of text as well as its analysis—a content and genre review of the DAS/OSCIO business case template was performed that covers higher- to lower-order concerns. Below is a screenshot of the title page and the ten pages of reviewed materials (MS Word DOCX with tracked changes and embedded comments).




Business Case for
Insert descriptive title
 Submitting Agency,
 Division, Section
 Date:
 Version:
 Authors
 OSIS 000-0000
 (Email [optional])



In the end, this document contains numerous issues that range from a basic need for revisions (spelling errors) and typographical formatting issues (headings, paragraphs, characters) to questions of purpose and audience that could lead to substantive, global-document changes. See appendix for more details.

6.2.2.2 Agency-authored artifacts

One of the issues noted in the template content analysis was a lack of guidance in terms of exact criteria versus character space spent on explaining how a table of contents works in MS Word. For example, 110 words are used to explain how to update the template table of contents, but 0 words are devoted to what is meant by an 11-word prompt to explain the “Consequences of failure to act.” Without guidance, how to agencies respond? This case study examined 5 sample business cases to gather some sense.

Consequences of Failure to Act

Explain the consequences of failure to approve/fund the recommended alternative.

6.2.2.2.1 Government Agency A

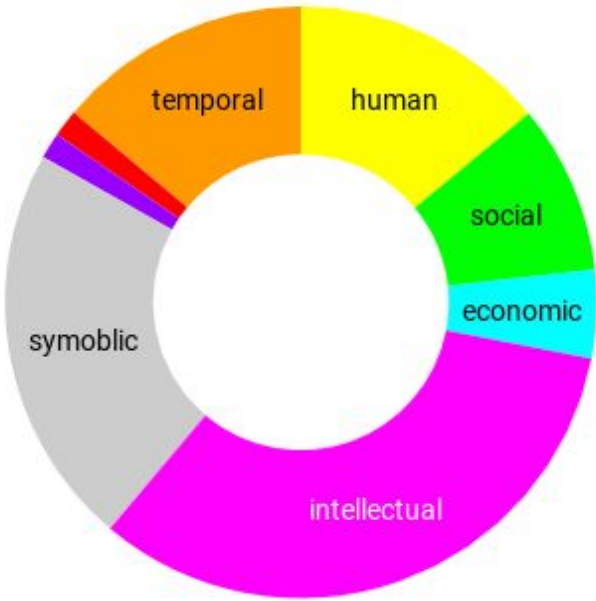
In the table below is the color-coded, minified text from Agency A's response.

- **Humanistic** (personhood, individual intrinsic and extrinsic needs)
- **Social** (groups, collective intrinsic and extrinsic needs)
- **Economic** (money, cost-benefit-risk)
- **Intellectual** (intellectual property, IP, including digital and analog)
- **Symbolic** (ethos, discipline/industry vertical, cultural cache, public image, etc.)
- **Governmental** (local, county, regional, state, federal legislative, executive, judicial government)
- **Geospatial** (location, geographical, topographical, ecological)
- **Temporal** (chronological, events, whens)

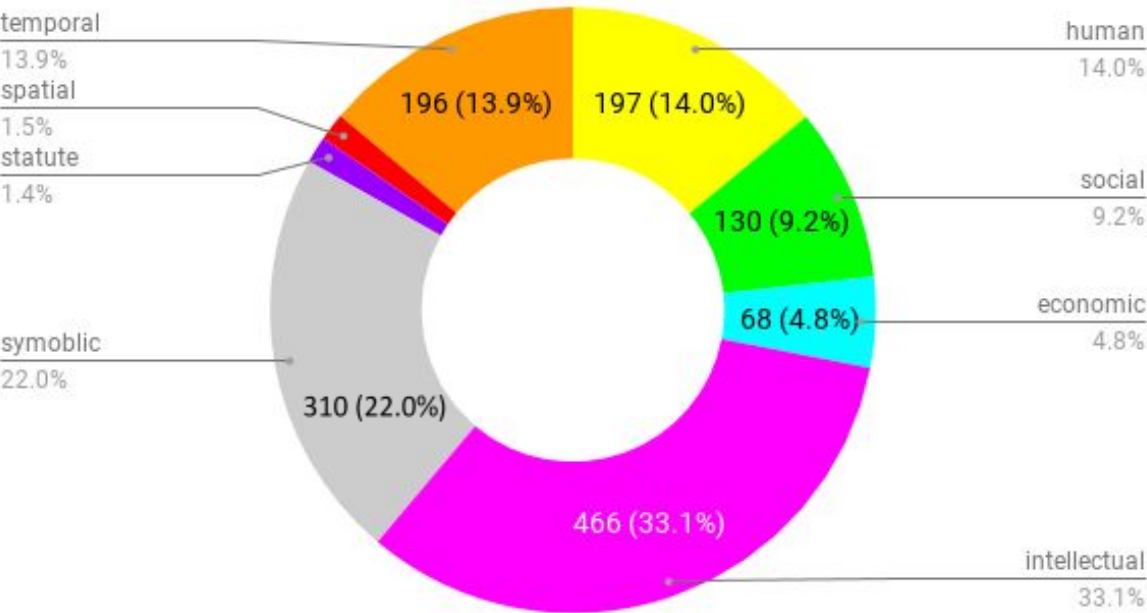
Humanistic 29w/197ch	Social 19w/130ch	Economic 11w/68hc	Intellectual 73w/458ch	Symbolic 47w/310ch	Governmental 2w/20ch	Geospatial 4w/21ch	Temporal 31w/204ch
<p>It is imperative that Oregon keep its 9-1-1 system up-to-date with technology and move toward the Next Generation of 9-1-1. Updating technologies and implementing new networks now will assure that Oregon is prepared to support and participate in any national initiatives to share critical data in the future. The safety of Oregon's citizens is dependent upon providing the highest level of public safety available. Remaining on the current network is not consistent with the 9-1-1 Five-Year Plan and the vision of 9-1-1 moving forward. Oregon also needs to keep up with citizen expectations of the 9-1-1 system in order to adequately maintain the public's safety. Doing nothing and leaving the public safety of Oregon citizens to an antiquated analog system that is not compatible with modern communication technologies is not a viable option. Cost benefit analysis has shown that it will be more expensive to remain on the current frame relay network and the phone companies' analog circuits over the next ten years than to transition and run on a NG9-1-1 network for the next ten years. It will also be more cost effective to consolidate PSAPs after a transition to a NG9-1-1 network is complete as opposed to consolidating in the current environment. Citizens know to call 9-1-1 for help. In the case of an emergency seconds can mean the difference between life and death. The caller expects the telecommunicator on the other end of the line to no [sic, "know"] where they are and dispatch help quickly and correctly. A NG9-1-1 network will improve the public safety system for the citizens who call 9-1-1 and will eventually allow people in danger to reach help by other means such as text, video, social media, telematics, and more as new life saving technology is introduced. NG9-1-1 technology is available and attainable in the state of Oregon. Choosing to remain on the current network would be depriving the citizens and visitors of Oregon the highest level of public safety possible today.</p>							

When the color-coded text is added up and compared against the rest relative to the whole, it can then be looked at with a different perspective to better see the rhetorical emphasis being put on text, its rhetorical "heat signature."

Agency A

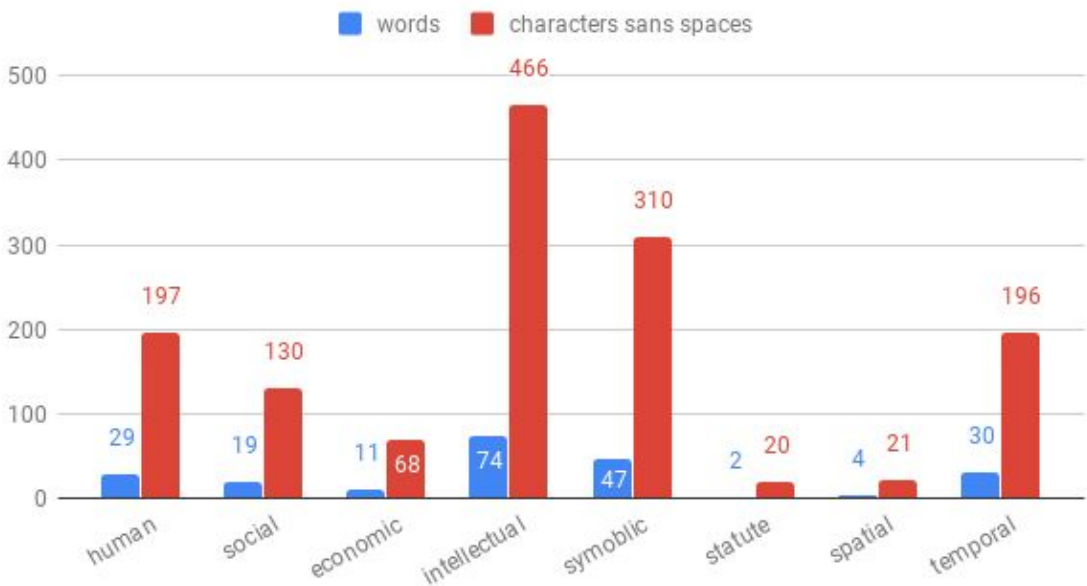


Characters sans spaces (percentage)



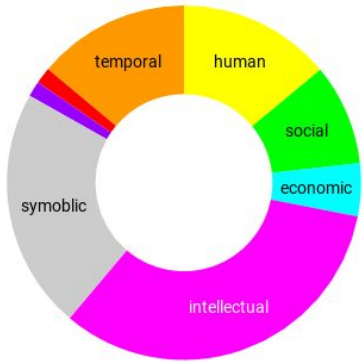
When those data points are converted into a bar graph in which the word count and character count are shown side by side, it's even easier to see where emphasis is being put in certain rhetorical areas.

Word and character count sans spaces

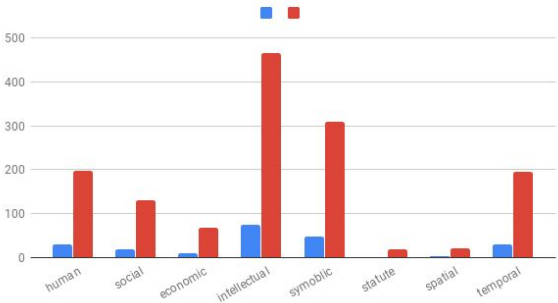


Based on the above, a basic move structure can be translated into a narrative of the rhetorical strategy:

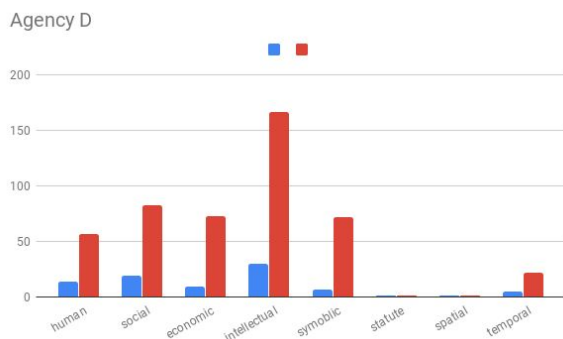
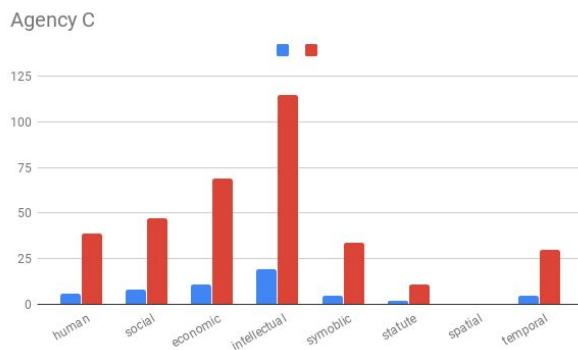
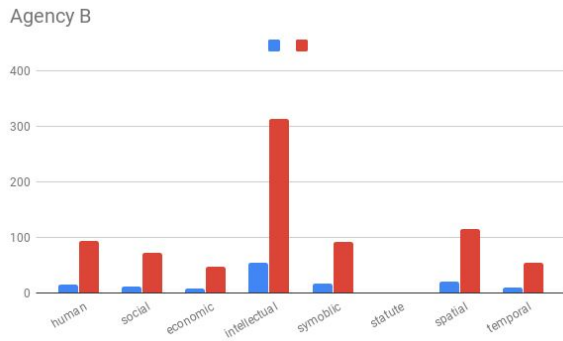
Agency A



Agency A



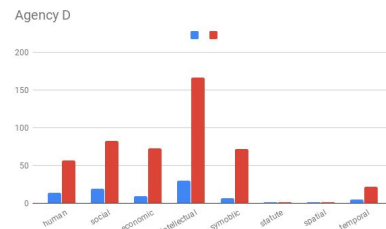
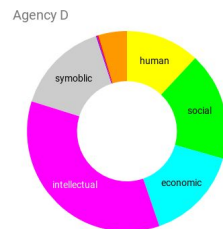
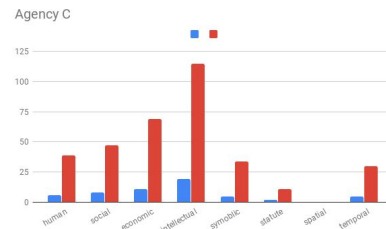
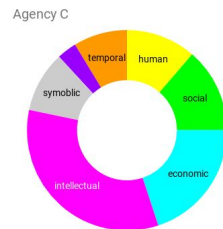
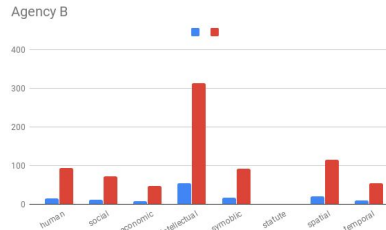
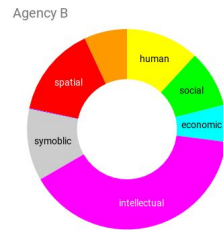
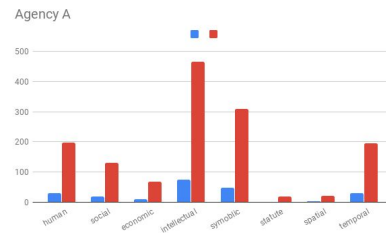
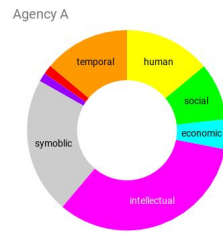
The same type of analysis can be applied to CFA sections from other business cases, e.g., B, C, D & E:



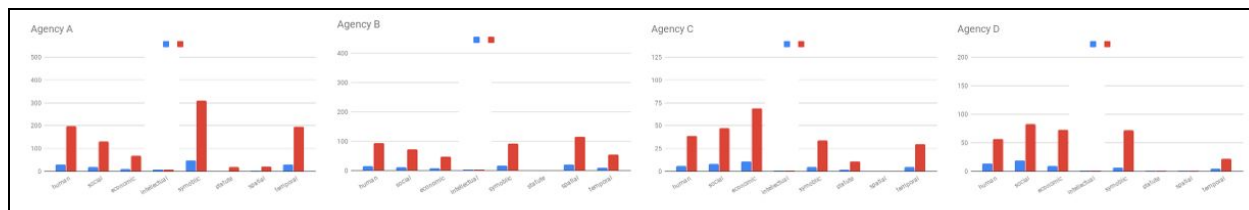
From a language standpoint, all agencies used different writing personalities based on mission, e.g., the words they chose; however, many of the agencies had the same basic concerns for their workforce, social wellbeing, environment, etc. Perhaps there is a heuristic in this that could be provided in a template of some kind (that all agencies, for example, list their human, social economic, symbolic, stature, spatial, and temporal leverage). This is just an example, but approaches with more structured content like this could help make sure all stakeholders are understood. With more structure, authors can write it in a structure way in their own words but still satisfy what the OSCIO needs to know.

Agency E: The absence of the “Consequences” section in Agency E’s business case was a blip on the genre radar. This business case came from the [OregonBuys website](#), a site in construction, and which seems to be a hotbed of development right now. With this division of DAS leading the way, could this mean the end of the CFA section in the business case? The Stage Gate could be leaning this way.

Below are all the CFA sections lined up for perspective on their similarities and differences.



While these bar charts look similar to one another, when the intellectual property bar is taken out (see figure below), it's easier to distinguish one from the other. Here, it shows how many ways (5 of 5) that an argument can be made for an IT enterprise system, as it applies to each scene and set of situations. None of the arguments cover all the ideological bases, and if they do, they're always leaning on some not all (but maybe should to keep track of all the different IT systems' effects on each other and society).



6.2.3 TODAY'S STAGE GATE (2019)

Quite recently, DAS/OSCIO and the LFO revised the Stage Gate document list and related guidance materials. While time did not allow for a full analysis of the changes, the evolution of this documentation is important for this case study, as it shows the evolution of an exogenre in near-to-real time, and notable areas have been pointed out that speak well to the dynamics and nature of the superimposed exosystem. In a nutshell, much of the modifications to the genre have not come so much in the templates as tools, but in the frontend.

- The landing page has changed the most, but it contains grammar and typographical errors.
- The framework model was cleaned up considerably. The list of documents was moved from that graphic to the new document list. The actants that were named disappeared into the past.
- Much of the templates, however, have not changed at all. The business case template has remained essentially the same, typos and all.
 - Note: OregonBuys has also done a lot of work to create real-world content for agencies, most of it coming from the Oregon Department of Forestry.



6.2.4 FUTURE STAGE GATE (POST-2019)

What are possible evolutionary paths of the Stage Gate genre? The results of analysis point to the need to devise more complex template structures than a “one size fits all” documentation approach. This represents a shift from document-centric information architecture to component-centric, topic-based, singled sourced IA. Under a component-driven model, the document becomes a form of input/output, not the data archive. Components in the content systems are managed separately, structured and custom-configured to local genre ecosystems, and what drive the documentation workflow process.

For example, a Senior Portfolio Manager can build and track different template structures based on the needed components and subcomponents, not weed through a “one size fits all” document in which much of the data and information are buried and require cultivation to retrieve and compile into a bigger whole.

There are certainly challenges to a shift like this, not the least of which is the initial cost of investment, as well as user adoption, which always comes with issues. Further research would be required.

See conclusion for more discussion of on the future state of Stage Gate.



7 CONCLUSION

To the naked eye, the OSCIO guidance and template documentation might appear static, or “set in stone,” but as the genre analysis of this case study revealed, these templates are flexible, “working” documents whose internal components evolve over the course of the project. Additionally, the analysis demonstrated templates are mere artifacts, singular snapshots in time, pointing to a “living,” “evolving” genre that has a life beyond the agency project. Furthermore, this genre is an “genre exosystem,” part of an oversight activity that encompasses networks of people, places, things, and ideas statewide.

However, when implementing a document-centric approach, particularly with a superimposed genre exosystem, it is much harder to add, omit, and track evolving components as they move through the project, jumping from one document to the next, sometimes appearing as slightly differently worded sections depending on the document. If these components were treated as separate single files in a component content management system that allowed for single database source to edit and distribute component content, DAS/OSCIO would be able to break from the document-centric approach and its burdens and thus prepare for a new level of size, scope and complexity of many more systems to come.

In other words, an oversight agency’s guidance and template documentation for large projects must be flexible enough to accommodate *multivariate* data from different types of agencies with assorted projects looking for review and Stage Gate approval. However, as research in this case study, from the Secretary of State audit, and other agencies have spoken to, DAS/OSCIO documentation does not satisfactorily address the different factors affect large-scale projects that can vary in size, complexity, and risk, as well as hinge on the collective experience of all the members of that project from every sector—government, public, private/nonprofit, legislative, and judicial—including but not limited to the Oregon State Legislature, DAS/OSCIO, authoring agencies, etc.

As has been pointed out in the Secretary of State audit, the threshold of \$1M is a single-variable model does not completely cover the complicated logistical realities of projects passing through stage gates.⁸³ Similarly, the “one size fits all” template model in a genre exosystem—while it is not overly prescriptive for authoring agencies—does not communicate the needed nuances for capturing the complexities inherent in the different components that come with differently sized projects with different risk. To be more localized, more adaptable, and quicker on its feet, the agency could give more structured content to authoring agencies and those helping write the documentation with a component-centric approach. This might could change the workflow entirely, leading to less time spent on duplications of efforts.

There are a couple areas that keep the agency from doing this. State Gate is reliant on the Project Management Institute activity models, which are document-centric views, and component content management systems are not common in desktop publishing and require specially configured software. This is not to mention that government change moves more slowly relative to the private sector. However, as has been demonstrated in this case study, the change from “one size fits all” genre approach to an exosystem more fully configure to the local genre ecosystem with component-centric approach, while a leap in the short-term, could save the state time and materials in the long term.

⁸³ Secretary of State, “Significant Cost Savings Can Be Achieved by Modernizing Oregon’s Procurement Systems and Practices,” <https://sos.oregon.gov/audits/Documents/2018-45.pdf>.

In short, a component-centric approach to project management in Stage Gate could prove more advantageous to the state than the current-traditional document-centric approach.

7.1 RECOMMENDATIONS

The following are short- and long-term recommendations based on observations for the state to consider moving forward, the two most notable findings falling into short- and long-term categories:

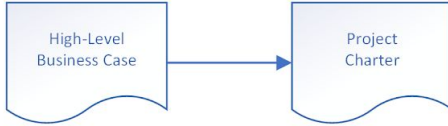
- **Short-term:** After a full evaluation of template artifacts, there are several higher- to lower-order areas of concern and actions that the state can take with its templates and other guidance materials. Editorial recommendations range from substantive edits to the text and use of more examples, to the dire need for a round of proofreading of materials, in particular new content produced by the state this year and the business case template.
- **Long-term:** The benefits and challenges to changing the information architecture of the state's document workflow from document-centric tools to component-based content management system (CCMS) architectures is yes unclear; however, project portfolio management of the exogenre could be made more adaptable with CCMS approaches to the local ecosystems upon which the exogenres are superimposed, helping to alleviate issues brought up in the last Secretary of State audit, namely that "oversight review lacks scalability for projects of different sizes, risks, and complexities, which may cause inefficiencies and frustration."⁸⁴

Figures below: The following figures show high-level views of the workflow involved with document management systems versus component content management system: all editorial entities input and output from a shared "cloud" database. This is a single-source model that keeps track of the components, instead of keeping track of these components siloed in a document. With the components in different files, it's easier to edit them, keep track of them, show them to different users, etc.

In documents data and info are hidden in documents, non- standard, repeated, etc. Format output is not fluid. The criteria formula for success is less apparent, but in the component-centric model, the document barriers dissolve. Data and info become more visible and traceable, more out in the open. Any repeated content can be referenced from one file (single-sourced). All files are topic-based. Each component can be assigned to a "map," or table of contents that can be assigned to different stakeholders and other members of the project in different outputs like PDF, HTML, etc. The criteria formula is more apparent.

⁸⁴ Oregon Secretary of State (2018), "Significant Cost Savings Can Be Achieved by Modernizing Oregon's Procurement Systems and Practices," 13: <https://sos.oregon.gov/audits/Documents/2018-45.pdf>.

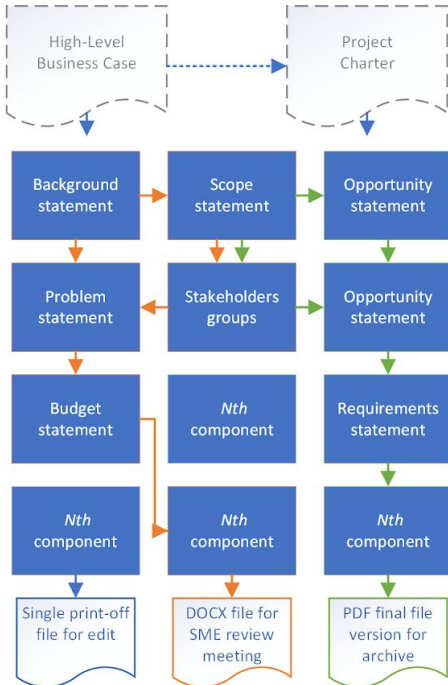
A Document-centric workflow



A. Data and info are hidden in documents, non-standard, repeated, etc. Format output is not fluid. The criteria formula for success is less apparent.

$P(\text{Project 1}) / \text{do}(\text{Document 1} \rightarrow \text{Document 2})$
 $P(\text{Project 2}) / \text{do}(\text{Document 1} \rightarrow \text{Document 2})$

B Component-centric workflow



B. In the component-centric model, the document barriers dissolve. Data and info become more visible and traceable, more out in the open. Any repeated content can be referenced from one file (single-sourced). All files are topic-based. Each component can be assigned to a “map,” or table of contents that can be assigned to different stakeholders and other members of the project in different outputs like PDF, HTML, etc. The criteria formula is more apparent.

$P(\text{Project 1: size, complexity, scope}) / \text{do}(\text{Component 1} \rightarrow \text{Component 2} \rightarrow \text{Component 3} \rightarrow \text{Component 4} \rightarrow \text{Component 5} \rightarrow \text{Component 6} \rightarrow \text{Component } n)$

$P(\text{Project 2: size, complexity, scope}) / \text{do}(\text{Component 1} \rightarrow \text{Component 3} \rightarrow \text{Component 4} \rightarrow \text{Component 6} \rightarrow \text{Component } n)$

$P(\text{Project 3: size, complexity, scope}) / \text{do}(\text{Component 1})$




Below are the documents and their correlated components. Notice the overlap in some components due to the document-centric model. The OSCIO is nearly ready to make the jump from a document-centric approach to a more nuanced component-centric, single-sourced approach.

OSCIO | Office of Information
Chief Information Officer

Stage Gate Artifact List

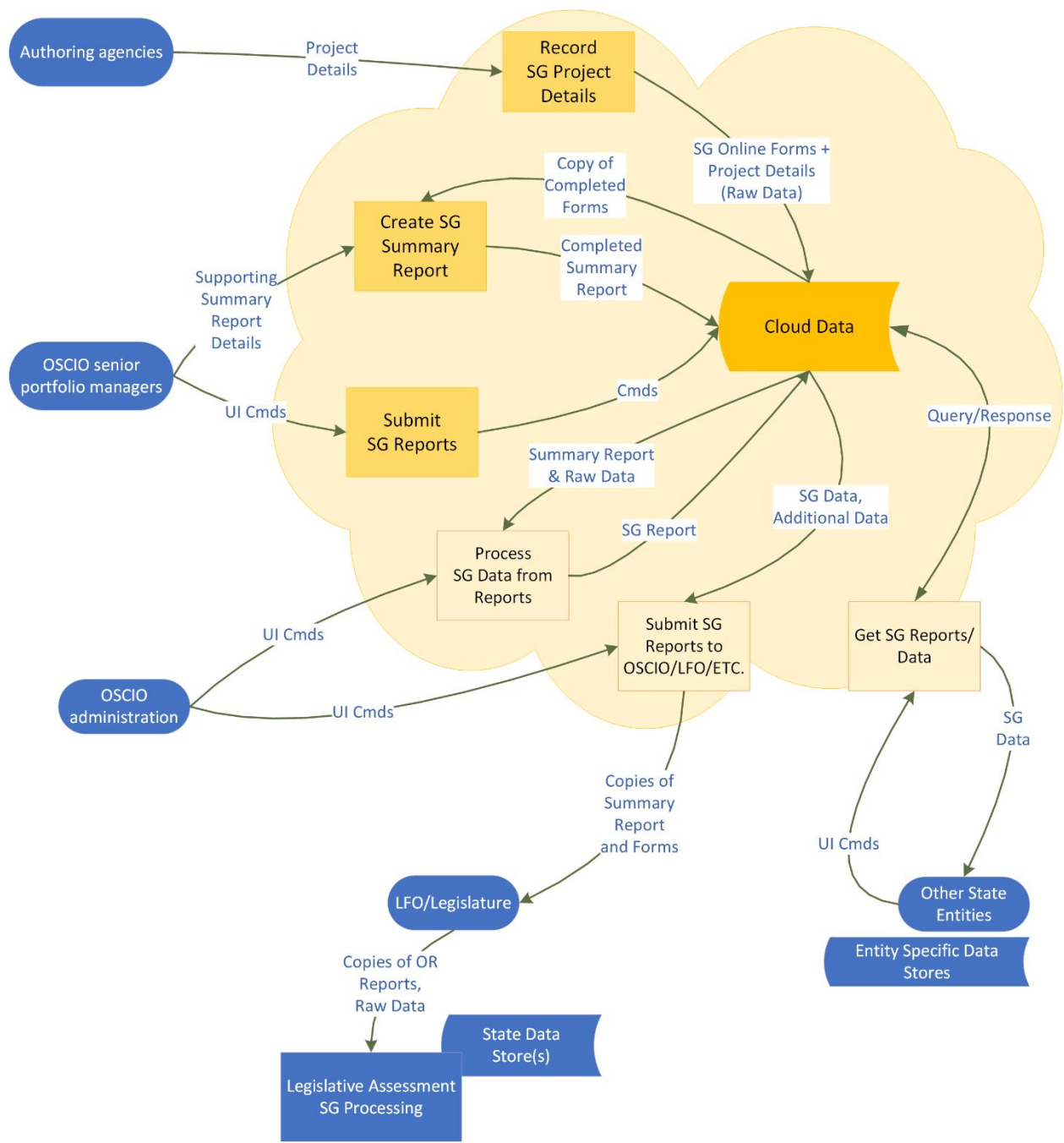
purpose1/1

The following is a list of the documents typically needed for a stage gate endorsement. Other documents may be requested.

Stage	Documents/Artifacts	Components/Notes
Origination Initial Budget Request	High Level Business Case	Subject, Purpose, and Scope Projected cash flows across timeline (lifecycle or other) Alternatives Analysis (to the extent possible at this point in the project lifecycle) Assumptions and Methods Problem or Opportunity Statement Costs and Measurable Benefits – Financial and Non-financial (to the extent possible at the point in the project lifecycle) 
EITGC Review	Prioritization Matrix IT Investment Form	
Stage 1 Initiation	Charter	Project Name Project Description Project Objectives Summary Budget High Level Milestones Major Project Risks Stakeholders Steering Committee Members and Representing Project Sponsor Project Manager Sponsor Approval Signature 
Stage Gate 1 Endorsement	RFP Documents/Contractor Statements of Work for Planning Project management and business analysis	If necessary
	Business Case	Overview and Background Current State/Future State/Gap Analysis Market Research/Other State Research Measurable Objectives and Success Criteria Assumptions/Constraints (Used for alternatives analysis) Alternatives Analysis (include selection criteria & cost/benefit/risk of each alternative, Recommendation) Scope Management Plan Schedule Management Plan 

See the following URL for more details on the screen shot above:
https://www.oregon.gov/das/OSCIO/Documents/Stage_Gate_Document_List.pdf


The following is another view of what the workflow might look like.



8 APPENDIX A: DETAILED TEMPLATE ANALYSIS

From an editorial perspective—referencing both the RGS and Sydney schools, the latter of which is geared toward the evaluation of text, as well as its analysis—a content and genre review of the DAS/OSCIO business case template was performed that covers higher- to lower-order concerns. The full markup can be found at this [URL hyperlink](#).

In general, the document is



Business Case for
Insert descriptive title

**Submitting Agency,
 Division, Section**

Date:
 Version:
 Authors

(508) XXX-XXXX
 E-mail [optional]
 Web site [optional]

The image displays a 3x4 grid of 12 pages from a 'Business Case' template. The pages are heavily annotated with red dashed lines and red text, indicating areas for improvement or specific evaluation metrics. The pages include sections like 'Business Case / Advertising Expenses', 'Table of Contents', 'Project and Budget', 'Conclusions and Recommendations', and 'References'. The markings indicate areas for improvement or specific evaluation metrics.

The sections below outline the items noted in the marked-up document shown above, ordering the content in terms of the Australian/Sydney school's evaluation metrics of written composition that move from higher- to lower-order concerns.

8.1 PURPOSE / MAIN IDEA

The guiding purpose statement for the business case is not explicitly stated in the template, but instead is implicitly stated in the blue guidance text and the checklists in the template.

8.2 AUDIENCE / READERS

This template does take into account the reader, but perhaps more user research could elicit what readers might need from the guidance document.

8.3 CONTENT DEVELOPMENT

There are chances to teach the genre while agencies and vendors are using the guidance documentation to author their respect project documents. One idea is to put more embedded examples of ways of phrasing for agencies to understand expectations. More thorough checklists are another way of adding and structuring content for agencies to provide a more effective writing environment.

8.4 ORGANIZATION / STRUCTURE

There is some confusion in the alternative analysis as to why certain things appear first. The “Selection Criteria” in the “Alternatives Analysis” is a prime example. New business cases are steering away from the selection criteria and perhaps that could be done in the template, or provide more structured content that help authoring agencies understand how to structure that content.

8.5 WORD CHOICE

There is no glossary of terms in the template, although this is taken care of somewhat by the website text and other artifacts to provide definitions or be obvious enough to use.

8.6 GRAMMAR, MECHANICS TYPOGRAPHY

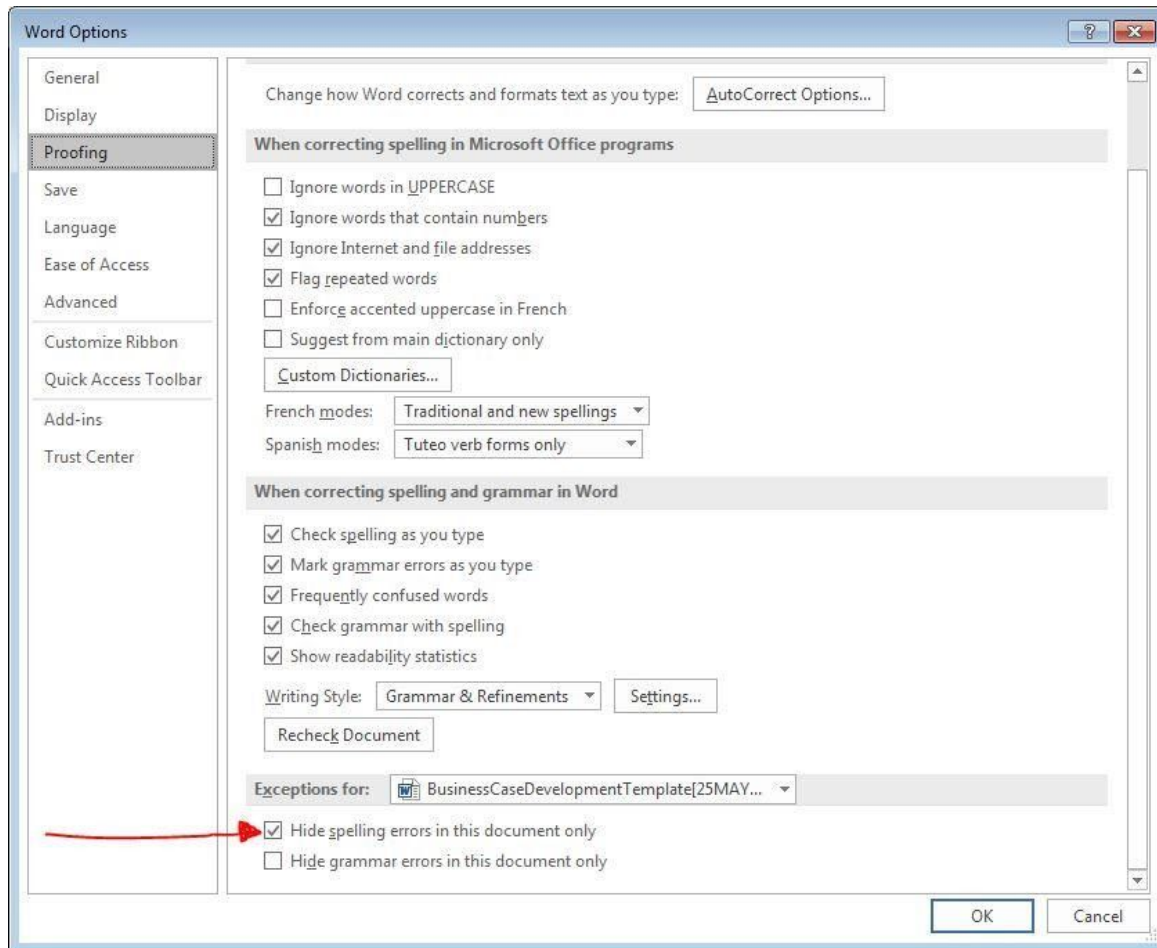
In terms of mistakes found in the business case, although not quantified, represent the majority of all the issues name thus far. There are several spelling errors due to unforced errors, e.g., the fact that the automatic spellcheck toggle has been switched off (it must be turned off manually by the creator of the template). This text reads as if there was no proofreading phase.

The Alternatives Analysis Section should:

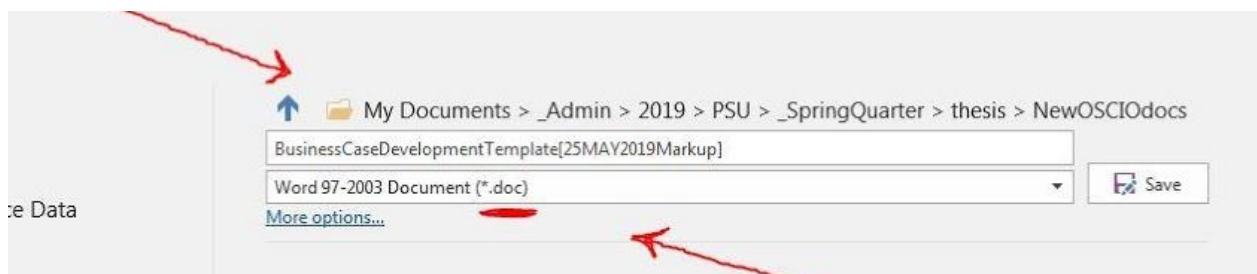
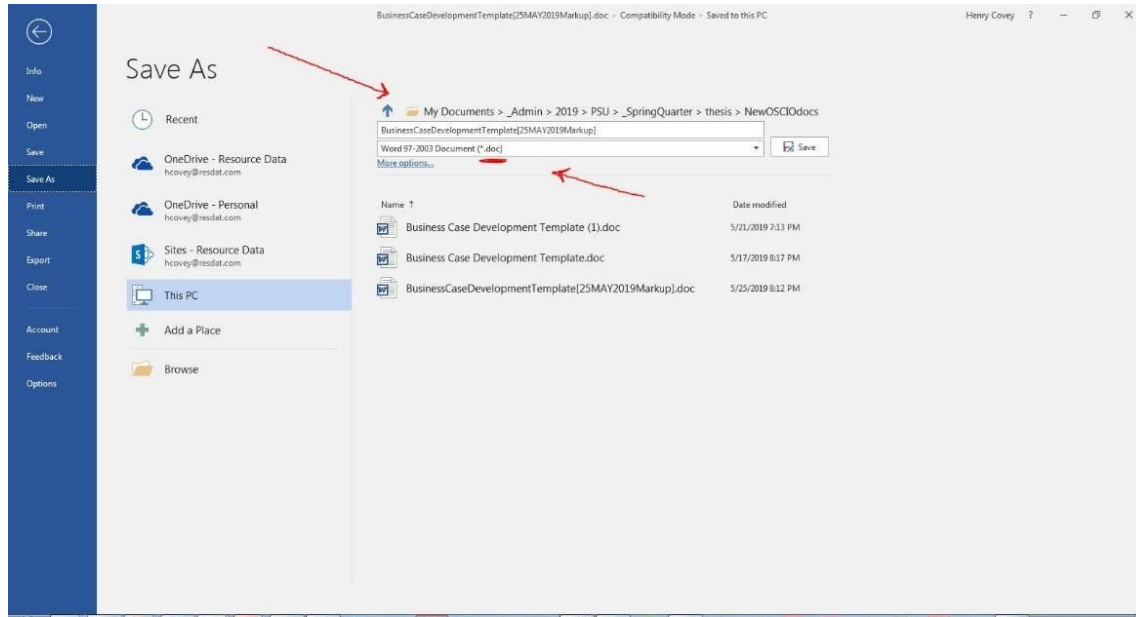
- Provide a set of assumptions that will guide the identification of alternatives, outline constraints, and create a framework for assessing each **alternative** against a set of solution criteria that will include a cost, **benefit**, risk analysis as well as an assessment of each alternative's ability to meet functional and non-functional solution requirements.*

Henry Covey
Deleted: *alternative*

Henry Covey
Deleted: *benefit*



In addition to the above, as seen in the following screenshots, the file is not the most recent version of Microsoft Word; the file is DOC extension, not DOCX, see below.



Below are samples of other notes (see online markup via the URL hyperlink provided above for more details).

Printed out, from a document-centric hands-on perspective, the fact that the space above this title has an H1-heading-level paragraph style tag doesn't matter much, but to a computer converting this to an XML document, this is hidden character causes confusion. This is the first of many such instances throughout the document in which a paragraph break is given an H1-heading-level paragraph style tag. To find these "ghost headings," go to View / Navigation Pane, and in the left-hand pane, the ghost headings appear as empty heading bars. This gives the template, an unfinished quality that makes one wonder if it's been proofread.

These first 110 words of guidance provide no substance for the purpose or audience of this document. Instead it jumps into the guidance. The first guidance provided is how to use a somewhat poorly designed table of contents. The guidance text is essentially making up for the table of contents, when the table of contents needs to be cleared of errors and the explanatory text can be condensed. To come back to the 110 words, this seems like a lot compared to the 0 words of guidance provided in the "What are the consequences of the failure to act" section at the end of the document.

The use of the definite article "The" and the singular "person" is a bit awkwardly phrased, as there are numerous signers below. To keep "person" would require something like "Any person," but perhaps this should just be "Persons" instead.

Missing question mark.

9 APPENDIX B: DETAILED AGENCY ANALYSIS

The following list detailed results for agency A.

9.1 AGENCY A: OREGON EMERGENCY MANAGEMENT (OEM)

The following are detailed results, as discussed in the “Results” section.

Agency	Oregon Military Department, Office of Emergency Management
Project	9-1-1 Program
Publication	January 2013
Doc specs	61 pages, 23,265 words, “Case_Analysis_v8_FINAL_FINAL.pdf”
URL hyperlink	https://www.oregon.gov/oem/Documents/OEM_Business_Case_Analysis.pdf
Word/characters:	216 words / 1407 characters without spaces

Consequences of Failure to Act

It is imperative that Oregon keep its 9-1-1 system up-to-date with technology and move toward the Next Generation of 9-1-1. Updating technologies and implementing new networks now will assure that Oregon is prepared to support and participate in any national initiatives to share critical data in the future. The safety of Oregon’s citizens is dependent upon providing the highest level of public safety available. Remaining on the current network is not consistent with the 9-1-1 Five-Year Plan and the vision of 9-1-1 moving forward. Oregon also needs to keep up with citizen expectations of the 9-1-1 system in order to adequately maintain the public’s safety. Doing nothing and leaving the public safety of Oregon citizens to an antiquated analog system that is not compatible with modern communication technologies is not a viable option.

Cost benefit analysis has shown that it will be more expensive to remain on the current frame relay network and the phone companies’ analog circuits over the next ten years than to transition and run on a NG9-1-1 network for the next ten years. It will also be more cost effective to consolidate PSAPs after a transition to a NG9-1-1 network is complete as opposed to consolidating in the current environment.

Citizens know to call 9-1-1 for help. In the case of an emergency seconds can mean the difference between life and death. The caller expects the telecommunicator on the other end of the line to know where they are and dispatch help quickly and correctly. A NG9-1-1 network will improve the public safety system for the citizens who call 9-1-1 and will eventually allow people in danger to reach help by other means such as text, video, social media, telematics, and more as new life saving technology is introduced. NG9-1-1 technology is available and attainable in the state of Oregon. Choosing to remain on the current network would be depriving the citizens and visitors of Oregon the highest level of public safety possible today.

- safety, citizen expectations, maintain the public’s safety, safety, citizens, Citizens, help, emergency, life and death, caller, telecommunicator, help, safety, citizens who call, people in danger, help, citizens and visitors
- Oregon, Oregon, support and participate, share, Oregon’s, public, Oregon, dispatch, public, reach, available, state of Oregon, Oregon, public safety

- Cost benefit analysis has shown, more expensive, cost effective to consolidate
- 9-1-1 system, 9-1-1, Updating technologies and implementing new networks, critical data, current network, 9-1-1 Five-Year Plan, 9-1-1, 9-1-1 system, compatible, communication technologies, current frame relay network, phone companies', run NG9-1-1 network, PSAPs, NG9-1-1 network, consolidating in the current environment, know to call 9-1-1, on the other end of the line, NG9-1-1 network, system, 9-1-1, other means such as text, video, social media, telematics, and more as new life saving technology, NG9-1-1 technology, current network
- move toward, Next Generation, prepared, dependent upon providing the highest level, consistent, vision, needs to keep up with, adequately, Doing nothing and leaving, transition, transition, mean the difference between, expects, where they are, correctly, improve, allow, attainable, Choosing to remain, would be depriving, highest level, possible
- national initiatives
- circuits, where they are
- Imperative, up-to-date with technology, in the future, Remaining, moving forward, antiquated, modern, viable option, remain, analog, next ten years, next ten years, complete, In the case, seconds, quickly, eventually, introduced, today

Humanistic	Social	Economic	Intellectual	Symbolic	Governmental	Geospatial	Temporal
29w/197ch	19w/130ch	11w/68hc	73w/458ch	47w/310ch	2w/20ch	4w/21ch	31w/204ch

9.2 EXPANDED METHODS OF ANALYSIS

Below are further explanations of methodological origins.

9.2.1 ZIPF'S DISTRIBUTION

Editorial note on the word selection (color-coded highlighting) rationale: Recent edification of Zipf's distribution (Yu, et al.) shows how readers process "common" words (e.g., "the," "you") differently than less "prodigious" ones (e.g., "prodigious"). Readers, in other words, are dual processors, reading words with different parts of their brains in concert with one another: one quicker and more intuitive, the other slower and more methodical. It's more complicated, e.g., multi-tiered, but sort of makes "writerly" sense, too, but is used here to leave out some words as unnecessary.⁸⁵

⁸⁵ Liu, Xu & Yu (2018), "Zipf's law in 50 languages: its structural pattern, linguistic interpretation, and cognitive motivation" <https://arxiv.org/abs/1807.01855v1>.

9.2.2 TOPOI DISTINCTIONS

This color-coded “heat-mapping” of socio-political categories of text used in the CFA sections is largely based on “capital theory” framework.⁸⁶ Each colored “rhetorical fingerprint” represents the culmination of the argument that has involve description, analysis, interpretation, and evaluation of the costs, benefits, risks, and alternatives.

- **Humanistic** (personhood, individual intrinsic and extrinsic needs)
- **Social** (groups, collective intrinsic and extrinsic needs)
- **Economic** (money, cost-benefit-risk)
- **Intellectual** (intellectual property, IP, including digital and analog)
- **Symbolic** (ethos, discipline/industry vertical, cultural cache, public image, etc.)
- **Governmental** (local, county, regional, state, and federal legislative, executive, and judicial governmental actants)
- **Geospatial** (location, geographical, topographical, ecological)
- **Temporal** (chronological, events, whens)

Using a “categorize and count” method, categories were identified using various models as analytic filters for text that can then be gathered and given a value based on the amount of mean words/characters (with and without spaces).

In filling in the template for this genre, we see with analysis traces of appeals to all the actors and activities in their network connected to the project/program for inclusion in the enterprise portfolio, references in their version of a business case in order to interface with the stage-gate governance process. There is a great diversity of cultures persons, places, things, and ideas that each authoring agency.

Layers of frameworks were categorized by *who*, *what*, *when*, *where*, *how*, and *why* to index and consolidate a customized actor network model for document-objects in the genre ecology of the Oregon stage gate review process for IT enterprise systems.

Framework	Who	What	When	Where	How	Why
Potts' object-actor, i.e., “nouns,” network model (2008)	Actors: person & groups	Things: systems & technology	Events	Place	Cause/effect relationship of objects	Cause/effect relationship of objects
Thompson publishing resources, i.e., “capital” network model (Bourdieu in Thompson, 2012)	Human & social	Economic, intellectual, & symbolic	-	-	-	-

⁸⁶ Thompson (2014), *Merchants of Culture*, 5-7, quoting Bourdieu (1990).

Burke's pentad (Burke in Kimball & Hawkins, 1950)	Agents	Agency	See "scene" and/or "act"	Scene	Act	Purpose
Read & Swarts (2015)	Actors	Concepts and realities of themes/topics, topoi/topos (e.g., "place," disciplinary, institutional, educational, budgetary)	<i>Whens</i> (concept/topoi phase change) and temporal values based on network configurations/relationships (nodes, links, network)	Space (buildings or parts of)		
OSCIO Project Prioritization (EITGC at JLCIMT)	Strategic value: value to customer	Strategic value: leverage potential, risk and importance to risk mitigation, financial return on investment (ROI / cost avoidance)				Strategic value: required service/Product-business alignment
OSCIO business case template	Stakeholders and business customers	Problem, solution, benefits, risks, costs	Schedule	State capitol, agency headquarters, regional offices	Alternatives analysis, Recommendations	Consequences of the failure to act
Proposed stage gate model	Humanistic (individual and social)	Ideological (areas of culturally capitalized context and influence: symbolic, economic, ethical/justice, governmental)	Temporal (events, whens, urgency, <i>kairos</i> , moments of opportunity)	Geospatial (topographical, geographical, ecological)	Logistical	Causal (<i>praxis</i> , Freire in Jones; causal diagram from Pearl; temporal sum relationship of who, what, when, where)

9.2.3 FUTURE OF THE CFA SECTION

Is the CFA the appendix of the business case? This seems to be losing its function. The modeling business case on the [DAS OregonBuys website](#) doesn't use the section. Could it be that we'll see its demise? From

a socio-political-environmental standpoint, this section lets the agencies speak their truth to power rhetorically using the evidenced that they gathered; it is rhetorically the exclamation for action at the end of a compelling business case that looks at all the factors and weighs not just the financial benefits, but the “non-financial” benefits, which the agency does not specific, and that they could, but that are nonetheless important to know when gatekeepers are evaluating. This section is where agencies can really dig their heels into the emotional, human capacity fueling their proposals. Yet most consider this section an afterthought, and now some new writing appears to have eliminated the section. Of all the sections in the business case, it is the most susceptible, especially as it goes undefined, but here is the place that the OSCIO can infuse more structured content that helps lead agencies toward expectations and content of their own with criteria for doing so, such as social justice and environmental justice writing.

10 APPENDIX C: DETAILED 2019 ANALYSIS

The first striking change of the new 2019 changes to Stage Gate is the home page, one of the first major revisions since the initial rollout of the genres in the exosystem in years. Below are two screenshots, a before and after shot. Notice how much more space is taken in the new home page text to explain Stage Gate and provide the URL hyperlinks to the policies that give Stage Gate its authority. The graphics have also changed, and a completely different visual language is being spoken, the hope to make things easier to parse for agencies new to the process and for those new to the most recent modifications.

Below is the old Stage Gate landing page. To the right is the new page.

The image displays two versions of the Oregon OSCIO Stage Gate landing page. The left screenshot, labeled 'Below is the old Stage Gate landing page', shows a page with a blue header and a sidebar. The right screenshot, labeled 'To the right is the new page', shows a more detailed layout with a 'What is Stage Gate?' section and a 'Stage Gate Process' section.

Old Page (Left Screenshot):

- Header:** State of Oregon: OSCIO - Stage Gate
- URL:** https://www.oregon.gov/das/OSCIO/Pages/StrategyStageGate.as...
- Navigation:** Home, Rules and laws, Policies, Contact us
- Section:** Department of Administrative Services > OSCIO > Stage Gate
- Section Title:** Stage Gate
- Enterprise IT Governance Office:** Home, Governance, Stage Gate, Enterprise Alignment, Senior IT Portfolio Managers, OSCIO Templates and Forms, Questions and Answers
- Helpful Forms:**
 - IT investment form
 - Replaces the Information Resource Request (IRR)
 - Business case template
 - Business case template-appendix
- Helpful Forms:**
 - Business case template
 - IT investment form
 - Replaces the Information Resource Request (IRR)
 - Review criteria for information technology projects
 - Business case template-appendix
- Diagram:** A flowchart showing the Stage Gate process: 1. Origination & Initiation, 2. Business Case & IRR, 3. Detailed Project Planning, 4. Execution, 5. Transition to Project.
- Links:**
 - Origination & Initiation
 - Business Case & IRR
 - Detailed Project Planning
 - Execution

New Page (Right Screenshot):

- Header:** State of Oregon: OSCIO - Stage Gate
- URL:** https://www.oregon.gov/das/OSCIO/Pages/StrategyStageGate...
- Navigation:** Home, Rules and laws, Policies, Contact us
- Section:** Department of Administrative Services > OSCIO > Stage Gate
- Section Title:** Stage Gate
- Enterprise IT Governance Office:** Home, Governance, Stage Gate, Enterprise Alignment, Senior IT Portfolio Managers, OSCIO Templates and Forms, Questions and Answers
- What is Stage Gate?**

The Stage Gate process provides an opportunity for incremental review and approval of significant IT projects. OSCIO endorsement is required at the end of each project life cycle stage.

Foundational Standard

The Project Management Body of Knowledge (PMBOK) defines a Stage (or Phase) Gate as a "review at the end of a phase in which a decision is made to continue to the next phase, to continue with modification, or to end a project or program." (PMBOK Guide, 6th edition, p.18) For the purpose of Stage Gate, OSCIO defines project life cycle as including stages for Origination and Solution, Resource and Solution Analysis & Planning, Implementation Planning, and Execution.

OSCIO has adopted the PMBOK as a foundational resources to guide development of methodologies, policies, and procedures. Consequently, the standard practices described in the PMBOK are reflected in the requirements and processes used throughout oversight review.

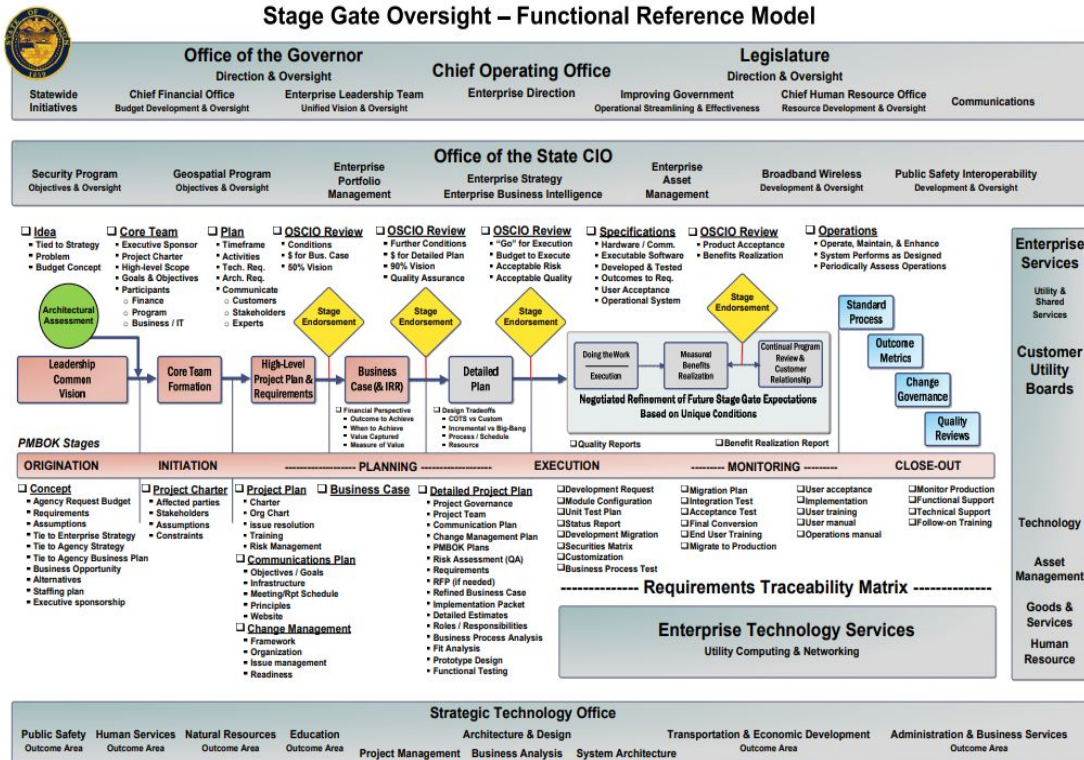
Stage Gate Process

There are four (4) Stage Endorsements in the OSCIO Stage Gate Review Process. Each project is unique and OSCIO has latitude in interpreting the Stage Gate process as it applies to each IT investment. The artifacts that typically support each Stage are included in the Stage Gate Document List (SGL). All project artifacts will be uploaded into the system of record (Project and Portfolio Management tool) for review.

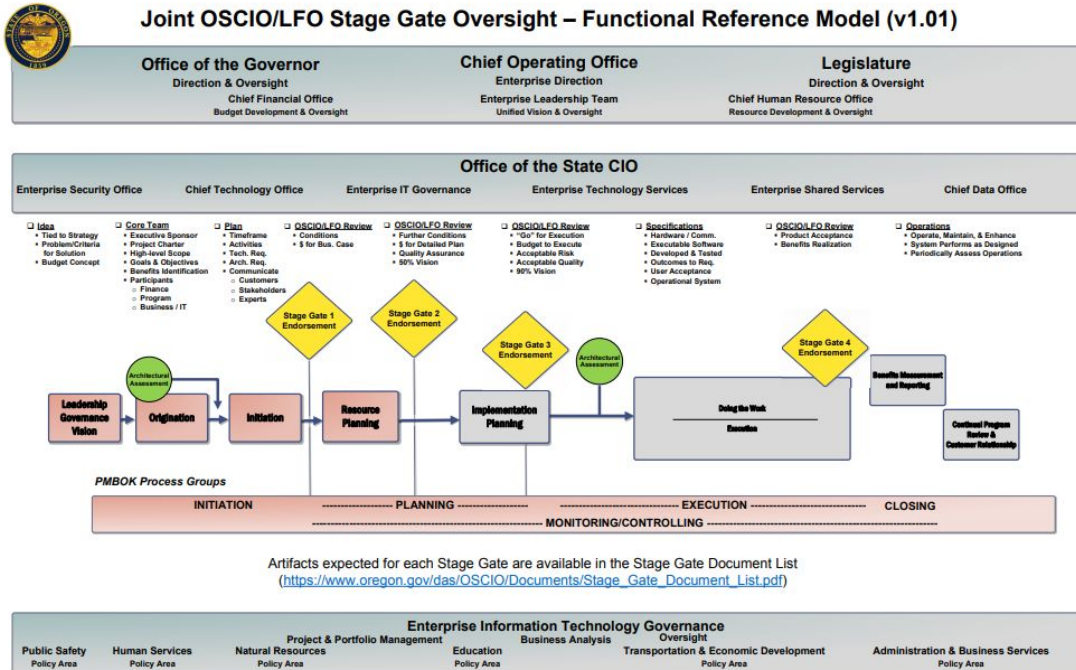
Per policy 507-004.130 (SGL), OSCIO approval is required for IT Investments for:

 - IT investments exceeding a cost of \$160,000, unless the investment is an agency-staffed application development project
 - IT investments exceeding a cost of \$1,000,000 for agency-staffed application development project
 - IT investments involving Information Classification Level 3 (restricted) or higher data
 - IT investments that meet one of the risk thresholds triggering OSCIO oversight under Section III of the Cloud & Hosted Systems Policy (reference Policy 507-004-90 (SGL))
 - Any IT investments where OSCIO determines that oversight, review, or approval is in the best interest of state government. Please discuss investments with your Senior IT Portfolio Manager; they will inform you of the need to submit the investment on the IT investment form (SGL)
- Diagram:** A flowchart showing the Stage Gate process: 1. Origination & Initiation, 2. Business Case & IRR, 3. Detailed Project Planning, 4. Execution, 5. Transition to Project.
- Links:**
 - Origination & Initiation
 - Business Case & IRR
 - Detailed Project Planning
 - Execution

The Functional Reference Model has also been heavily edited. Below are the new and old versions. Notice how the agency had de-cluttered much of the diagram and most many of the deliverables to the Document List page.



Compared to the above, the new diagram below is much cleaner, components sent [here](#).



Unfortunately, the error-prone text seen the template is also pervasive in the new text on the title page. There are both grammar and typographical errors in the home page text, perhaps more than these captured below.

no "s"

↓

OSCIO has adopted the PMBOK as a foundational resources to guide development of methodologies, policies, and procedures. Consequently, the standard practices described in the PMBOK are reflected in the requirements and processes used throughout oversight review.

Stage Gate Oversight

[Stage 1: Origination & Initiation](#)[Stage 2: Resource and Solution Planning & Analysis](#)

Work activity to prepare for Stage Gate 2 endorsement corresponds to a project's resource and solution analysis planning. Stage 2 ends when OSCIO provides a Stage Gate 2 endorsement memorandum (which may contain conditions that must be satisfied before the next endorsement).

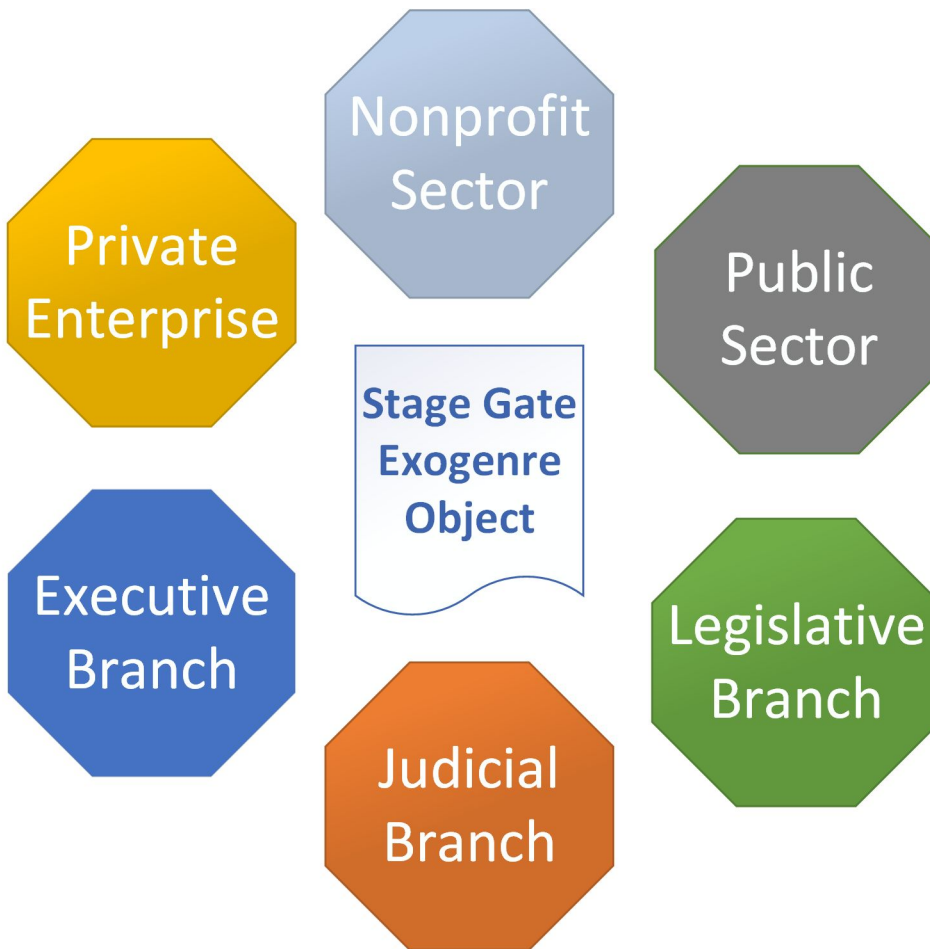
This Stage is expected to be completed before the agency begins a formal Request for Proposals (RFP) process to procure the project's Solution Contractor (also known as the System Integrator, Implementation Contractor, Design-Development-Implementation (DDI) Contractor, etc.).

Independent Quality Control review of important foundational planning artifacts may need to occur prior to Stage Gate 2 endorsement.

[Stage 3: Implementation Planning](#)[Stage 4: Execution](#)

11 APPENDIX D: STAGE GATE ACTANT NETWORK

Below is a high-level diagram of the different actors in the composition workflow. The nonprofit sector and judicial branch were out of scope for this research. This is only the main level hub of a multi-level actor network diagram.



11.1 PUBLICATION ACTOR NETWORK

As seen with the communication circuit and narrative above, zoom-in to OSCIO publication world, and one finds that the technical documentation involves numerous ecosystems of writing, editing, and curation that call on the coordination and collaboration of all levels of government. When confronting the level of documentation, one is likely to see Thompson “plurality of worlds” or Bourdieu’s “fields.”⁸⁷ Continuing to use Thompson’s “publishing value chain” as a lens, on closer inspection, as one might expect with any writing exercise, the SG process resembles the standard editorial process⁸⁸:

⁸⁷ John Thompson, *Merchants of Culture* (New York: Plume, 2012), 3–4. See also, Pierre Bourdieu, *The Field of Cultural Production: Essays on Art and Literature*, ed. Randal Johnson (Cambridge: Polity, 1993).

⁸⁸ *Ibid*, 16.

Table 1: Value Chain of IT Documentation Process within the OSCIO “SG” Documentation Process

Publishing actors	OSCIO “SG” process analogs
<p>Managing Editing (Man. Ed.) Developmental Editing (DE) Copyediting (CE) Proofreading (PR) Editorial Review Board (Board)</p>	<p>Man. Ed.: Senior IT Portfolio Manager (SIPM) act as the managing editors in charge of their own various imprints. The SIPM position within the OSCIO “serves as a senior-level, operational consultant, coordinator and advisor on emerging technologies, business trends, current and future agency technology issues and opportunities, and strategies related to maximizing the return on investment of enterprise and shared services technology efforts.”⁹¹</p> <p>DE: Project Managers act as in-house or, in many cases, consultant developmental editors by helping the agencies gather needs and plan the implementation of a large-scale enterprise IT system. Can be in-house PMs or contracted, like DE editors in the publishing industry.</p> <p>CE: Business Analyst act as the copyediting component, who can also be in house or out-of-house professionals with knowledge of the process that can help edit, augment, modify, build, etc., whatever the agency as the author and admin as publisher need.</p> <p>PR: Quality assurance and control (QA/QC) and independent verification and validation (IV&V) act as proofreaders, checking everyone’s working and adding identifying gaps.</p> <p>Board: In the end, the LFO/CFO acting with DAS/OSCIO, serve as the editorial review board in that they review and endorse the</p>

⁸⁹ DAS, OSCIO, “Basecamp: About us,” Department of Administrative Services, Office of the State Chief Information Officer (accessed November 1, 2018), <https://www.oregon.gov/basecamp/Pages/About.aspx>.

⁹⁰ The PPM tool requires a government user ID and password and has not been accessed at the time of this writing. More templates and forms are said to be on this platform. Correspondence with John Stroud (Project Manager, Resource Data and Oregon Geospatial Enterprise Office) and Angel Gillette (Project Manager, Oregon Department of Environmental Quality), ODEQ Headquarters, Portland, Oregon (October 15, 2018).

⁹¹ DAS, OSCIO, “Strategy Officers,” Department of Administrative Services, Office of the State Chief Information Officer (accessed October 29, 2018): <https://www.oregon.gov/das/OSCIO/Pages/StrategyOfficers.aspx>.

	writer agencies who have been brought up through the editorial ranks, from conceiving the IT system to executing the go-live.

The task of compiling the technical and non-technical documentation required is daunting, given the data/info needs to be gathered from numerous sources, analyzed, and vetted so that the state can make an official request of the assembly. But nearly a dozen agencies or more take this the SG publishing journey yearly.⁹²

11.2 COMMUNICATION CIRCUIT NARRATIVE

Based on the above, the following table is a narrative outline of the communication circuit that provides more details on the documentation process of each stage and what types of documentation artifacts are necessary relative to that stage.

11.2.1 SG 1: ORIGINATION

Documentation process overview	Types of documentation
	<p>High-Level Business Case High-Level Risk Assessment High-Level Project Plan Policy Option Package (POP) Project artifacts from stage 2 or 3 are also welcome.</p> <p>Idea/Concept Budget concept Agency request budget Problem statement</p>

⁹² DAS, "Current IT Projects," *Administration and Business Services: Information Resource Management (IRM) Strategic Plan: 2017–2019*, Department of Administrative Services (2016).

	Requirements Assumptions Tie to enterprise strategy, agency strategy, agency business plan Business opportunity Alternatives Staffing plan Executive sponsorship
--	--

11.2.2 SG 2: INITIATION

Documentation process overview	Types of documentation
	<p>Affected parties Stakeholders Assumptions Constraints</p> <p>Executive Summary Background Problem or Opportunity Statement High-level Solution Requirements Alternatives Analysis And more (see appendix for examples)</p> <p>Project's preferred solution approach (part of the alternatives analysis in the business case) Business and functional requirements that can support a formal request for proposals (RFPs), if needed, inclusive of business (functional) requirements, technical (non-functional) requirements, security requirements, and other requirements</p>

	<p>considered important for the project by the agency's management or by OSCIO; and, Detailed project management plans/artifacts for the project, including a project plan that describes the project's scope, schedule, necessary budget, and resources needed to within +/- 50% of the project vision.</p> <p>Documents related to Quality Control review of important foundational planning artifacts created prior to Stage 2 Endorsement; such as reviewing project requirements and a draft Statement of Work in support of the RFP process to procure the project's software vendor (called the "prime").</p> <p>During Stage 2, agencies are free to produce and submit more-detailed artifacts normally expected by Stage Endorsement 3.</p>
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11.2.3 SG 3: PLANNING

Documentation process overview	Types of documentation
	<p>Project Management (as needed) Quality Assurance (Depends on whether Preliminary Quality Assurance and other Quality Management Services are required) Design, Development & Implementation</p> <p>Governance, Oversight and Accountability Change/Scope Management Schedule Management Project Staffing</p>

	Project Procurement Management Risk and Issue Management Quality Management Budget Management Communication Change Leadership
--	--

11.2.4 SG 4: EXECUTION

Documentation process overview	Types of documentation
	Copy of Executed Contracts & Amendments Updated ITI/Business Case for Re-baseline of scope, schedule or budget Updated Foundational Project Management Documents (as needed/appropriate) Project Status Reports & Risks Logs (scope, schedule, budget, risks) Independent Quality Management Plan, Independent QC Reports, Independent Test Reports (IV&V testing), Special Requests Reports Monthly and Quarterly Independent QA Reports End of Phase Project Lessons Learned / Project Evaluation Reports

	<p>Contingency Plans, “Off Ramp” Plans, Fall Back Strategy, etc.</p> <p>Post Implementation Reviews Lessons Learned / Project Evaluation Reports Benefits Realization Reports Closing Report and other documentation deemed relevant by the OSCIO or the LFO</p>
--	--

⁹³ DAS, OSCIO, “Exhibit C: Stage Gate Review Process,” General Requirement No. 8, DAS Policy 107-004-030, DAS, OSCIO, 9 of 29: https://www.oregon.gov/das/Policies/107-004-030_PR.pdf.

12 BIBLIOGRAPHY

The [yet incomplete] source documentation below is broken into categories by publication method.

12.1 GOVERNMENT PUBLICATIONS

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