

Towards an Ontology of Content

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Abstract

The past 30 years have seen a rapid development of digital technologies that have accelerated the rate at which humans communicate. This acceleration has been the result of a widespread adoption of social media, which is described in this paper as digital communication platforms (DCPs). Humans use DCPs to host content as various types (VATs), in content channels (CC), and as content tokens (tVAT). The current study of content creation (cVAT) separates the instruction of each content type (tVAT) into its own curriculum; this antiquated approach to the study of communication arts demands a new analysis that takes into consideration DCPs' ability to host multiple types of content and content tokens on various content channels.

Businesses quickly adopted DCPs because unlike traditional platforms like print, radio, and television (PRT), DCPs were not exclusive or expensive. It is for this reason that DCPs now serve as a foundation for the creation of culture. With that in mind, graduates entering the job market are expected to have a digital literacy level (DLL) that is sufficient to the creation and communication of content via DCPs. However, while students have graduated with an accurate measurement of their proficiency in a certain language, academia has provided no method in which to gauge their DLL. This paper aims to provide a preliminary method of measuring a person's DLL; however, further study is needed to formally address the concept of measuring digital fluency.

Keywords: Digital communication platform (DCP) content channel (CC), content type (VAT), content type tokens (tVATs), content type token type (kVAT)

Introduction

Manifesto

This paper provides academia with a theoretical foundation that can facilitate better instruction to the study of communication. It was not until the end of my K-12 education that it became apparent to me that I was more digitally proficient than the educators who were teaching me how to communicate. This was and is extremely disheartening because in a system where the student understands a subject better than their teacher, the system, the educator, and the student have all lost. In that system, students are not able to properly harness their natural understanding of a subject because academia is not capable of adapting to changes in the subjects it teaches. The reason this phenomenon occurs, specifically in the study of communications, is because academia has not established a curriculum to teach students how to effectively communicate via the platforms available to them today. This paper explores the recent evolution of human communication as a result of the emergence of DCPs, explains the role of the ontology of content in the study of communications, provides a preliminary method of measuring digital literacy, and discusses what else is needed to effectively prepare graduates entering the job market.

About the Communicator

It feels clichéd to mention the fact that I am a member of Gen-Z because it is usually mentioned to argue in favor of the idea that our generation understands the internet better than other generations. While I do believe this to be the case, I think it is most important to mention because it provides historical context to my perspective. I experienced the modern evolution of human communication since I was born in 1996 and was in the first waves of internet adoption. The first time I remember communicating via the internet was sometime between 1999 and

2001. My father initiated a voice-call with my older sister using his desktop computer that was connected to the internet via dial-up. I remember him making a big deal about it and me thinking to myself it was just a new type of phone.

My deep vestment in communication stems from early experiences with these emerging technologies as a result of my father having a profession in video production. These experiences definitely contributed to the formation of my DLL by exposing me to the frameworks and technologies required to produce quality video content. This was useful to my comprehension of the ontology of content, because producing video content requires an understanding of the theoretical framework of other types of content like audio, text and still images (VATs). By late elementary school, I already understood the process of using a device to record content and then using another device to edit the content (VAT) into content type tokens (tVATs) for people to consume via various content channels (CC). Arriving in high school, I was so digitally proficient that I understood how to manipulate content for the purpose of communicating better than the educators who were there to teach me. Academia's negligence to address what the emergence of DCPs meant for the future of communication careers culminated with me studying philosophy instead of communications during my time as an undergraduate student. It is unsettling that in spite of communication having been an academic study for centuries leading up to this point, academia still fails to address the implications of digital communication platforms on the ontology of content.

This paper requires an understanding of the following concepts: digital communication platform (DCP), content channel (CC), content type (VAT), content tokens (tVATs), and content token type (kVAT). DCPs are platforms that can host multiple VATs and tVATs in at least one CC.

CCs are channels within DCPs that can organize content by VAT, tVAT, or kVAT. VATs are the forms content can take: video, audio, text, and still images. The full phrase for tVATs is “content type tokens” but are read as “content tokens” for the sake of simplicity. tVATs are what is used to communicate via DCPs. DCP’s CCs use kVATs to organize tVATs by either macrocontent (mnVAT), microcontent (mnVAT), or minicontent (mnVAT).

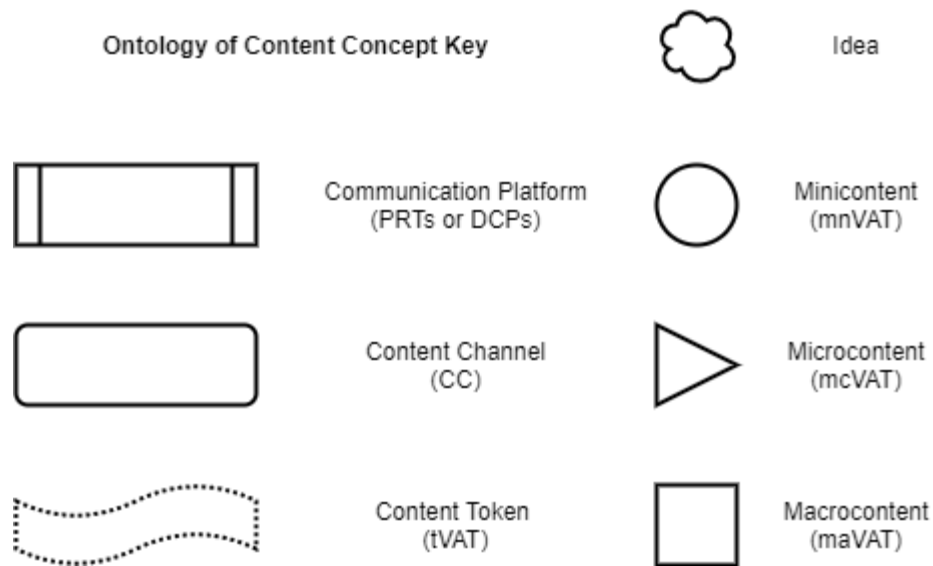


Figure 1.2.1

Literary Review

Brief History of Human Communication

The origins of human communication trace back to as early as 3000 B.C. (Richmond & McCroskey 2008). Since then, it has changed tremendously, and in order to understand its modern form, we must refer back to its roots as described by Aristotle. His theory of communications centered on rhetoric and said its goal was to either persuade another person of an idea or find consensus with them on a topic. Aristotle listed three principles of rhetoric which also apply to other types of communication: truth is mostly unattainable; arguments must adapt to the audience; and that rhetoric is merely a tool (Richmond 2008). Aristotle's principles were based on rhetoric because it was the only type of communication that existed in his lifetime. In 2020, while we are told a certain fact is true, different sources on DCPs release varying versions of said truth. In addition, sources also use specific content that will resonate better with the demographics of their respective audiences. This demonstrates Aristotle's principles that the truth is hard to attain and that what is communicated by sources on DCPs depend on what the sources think will resonate with their audiences. His third principle recognizes that the platforms are tools used by humans to communicate. In his time, the tool was rhetoric, but new forms in which humans could communicate were generated from the introduction of technologies like: the printing press, radio, and television (PRT).

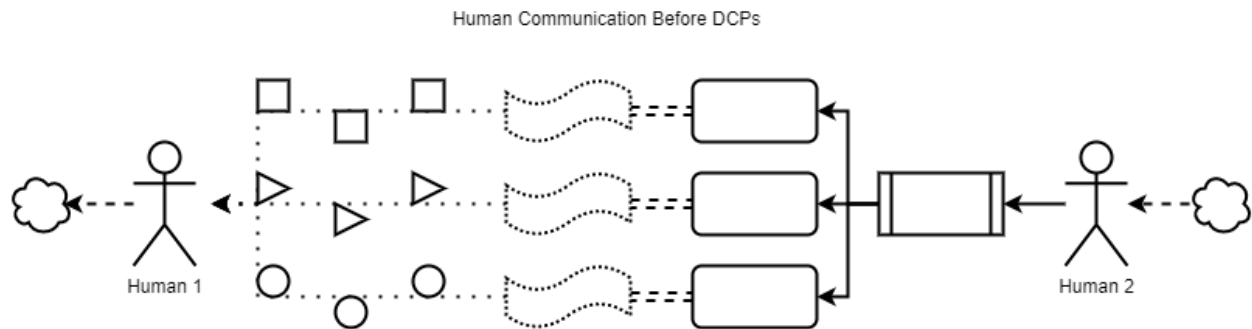


Figure 2.1.1

The adoption of these technologies introduced platforms with the ability to host the content types (VATs): video, audio, text, and still images. More recently, the internet introduced DCPs with the ability to host multiple VATs at once. When Aristotle first explored the idea of communication, the platforms that existed could only host content as still paintings, handwritings, or spoken-word legends. New DCPs that have emerged in the last 30 years have facilitated capabilities to communicate with each other in multiple VATs and have produced new tVATs that are hosted on new CCs. This demands an immediate ontological organization of content for the purpose of creating a curriculum which can improve digital literacy by providing students with a theoretical foundation that takes into account modern communication platforms.

Emergence of DCPs

Communication is an important means of organizing human activity in space-time and over spatio-temporal distances (Fuchs, 2016), meaning that content can be consumed in multiple physical locations over different points in time. Therefore, society's development relies on humans' ability to communicate with each other. This is why humans developed a spoken

language and then symbols (text) to represent its words. Antiquated platforms like PRT could only host one VAT at a time. For academia this meant that the study of VATs needed to be broken up into dedicated curricula for each VAT. This used to be adequate because there were clear career paths in each VAT's industry and graduates did not need to be educated on the other VATs in order to be effective in their field. With that said, what relevance does the ability for DCPs to host multiple VATs at once have to do with the study of communication?

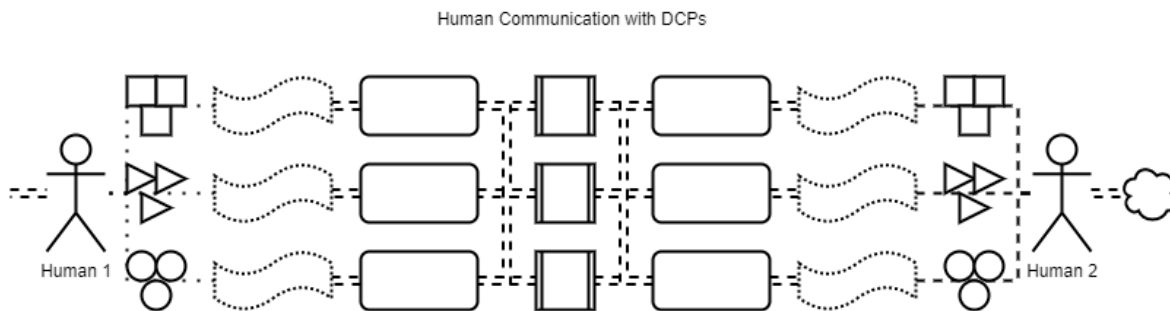


Figure 2.2.1

DCPs were initially built as communication platforms for friends but have since become a global phenomenon with the launch of Facebook in 2008 (Content, 2019). DCPs include conferencing tools like Zoom, online media repositories like Vimeo, and social media sites like Facebook (Content, 2019). Remembering Aristotle's third principle here is important: the medium is just a tool. DCPs are tools which host, aid in the production of, and facilitate the consumption of VATs and tVATs. More precisely, DCPs are technologies of distribution and consumption of content which enable communication over spatio-temporal distances and across generations (Fuchs, 2016). Human communication's rapid development over the last 30 years is directly connected to the emergence of DCPs.

Antiquated platforms like PRT only allowed a select number of individuals to share their ideas (Figure 2.1.1), but now the adoption of DCPs have lowered the barrier for humans to create and share content (VAT) for other humans to consume in the form of content tokens (tVAT)(Figure 2.2.1). In short, there are now many more convenient opportunities for humans to engage in content production rather than content consumption (Fuchs, 2016).

DCPs have proven that platforms are not VATs because DCPs can host multiple VATs and kVATs. DCPs help humans unlock the potential of their society by encouraging open communications, primarily through the creation and consumption of content. PRT were limited to only hosting one tVAT at a time, so when society adopted DCPs, the ways in which humans interacted with each other changed because now they could communicate more, faster (Figure 2.2.1).

An implication of humans' adoption of DCPs that is usually overlooked is the generation of new kVATs. This is important to note because the focus of human attention is the tVATs they consume and not the DCP that hosts them. DCPs merely provide a platform for humans to post or consume tVATs. As a means to organize tVATs, DCPs introduced new types of content channels (CC) which can filter tVATs by three types: macrocontent (maVAT), microcontent (mcVAT), and minicontent (mnVAT). In addition, DCPs have afforded new digital practices which can be viewed as part of a broader set of social structures and cultural patterns (Fuchs, 2016).

Evolution of the Digital Worker

Georg Lukács was a Marxist philosopher who wrote about society and capitalism in his book "Ontology of Social Being." His work is mainly concerned with the relationship between work and culture, but also gives attention to communication and language (Fuchs, 2016). Prior

scholars write that this makes the books' concepts noteworthy from a media and communications perspective (Fuchs, 2016). Lukács defines work as the relationship of interchange between humans and either natural or inorganic materials such as tools, raw materials, or objects of labor (Fuchs, 2016). His idea of work is not just a process between humans and nature, but one between humans, nature and culture, in which humans create with the help of technologies physical, social and informational use-values out of natural or inorganic materials (Fuchs, 2016). The creation of digital content results in social and informational use-values produced from inorganic materials because of scientific and technological progress in the form of DCPs and the technologies that facilitate them. As a result, common perspectives are that being DL gives graduates a competitive edge when entering today's highly competitive job markets (Brown, 2016).

Digital Literacy's Role in Communications

Adjusting the style or tone of communication depending on the platform, audience, or situation where it takes place has always been standard practice (Content, 2019). However, because DCPs introduce CCs that host specific kVAT, formalizing the ontology of content is vital to the measurement of a students' digital literacy level (DLL) and the efficient instruction of content creation's (cVAT) role in human communication. A need for this has been evident for over 50 years, as written extensively on by communications philosopher Marshall McLuhan (Edwards, 2020). McLuhan argued that the fixed, linear nature of text tVATs affected the way humans thought about their disciplines and about the meaning of humanness (Edwards, 2020). The recent introduction of television, he argued, would restore a sense of community and solidarity that had been lost to literacy after the birth of the printing press (Edwards, 2020).

McLuhan had prophetic analyses of media technology's effect on society which dismayed professional media scholars (Edwards). Essentially, McLuhan was focused on the concept of literacy regardless of the VAT, where a movie and a book can contain the same definition content. His argument is summarized in that what matters is not the medium, but the message: in a sense alluding to Aristotle principle that rhetoric is just a tool. With all that said, academia has still ignored the fact that in order to effectively communicate on DCPs, you must know the theoretical frameworks of each individual VAT. Since the emergence of DCPs could not be completely ignored, academia recommended that businesses consider the language they use to reflect their brand personality when communicating on DCPs (Content, 2019). In addition, it has also established that the production and communication of content can be considered a work process (Fuchs, 2016). Basically proving to itself that there is a clear need to be DL in order to effectively communicate on DCPs.

However even with the recommendations academia provides no clear instructions on how to create content that can be used on DCPs. Since writing and rhetoric were the most available and adopted tools for mass communication, teaching to read and write was essential to the prospects of a student. When McLuhan suggested this, he was disregarded because VATs other than text were still not feasible to create or mass distribute. The emergence of DCPs have opened up the possibility for all humans to engage online, but cVAT is still only taken up by a minority of internet users (Brown, 2016). Businesses are aware that creating entertaining tVATs is challenging because it requires time and inspiration, ultimately demanding workers who can help them communicate their brand's culture effectively (Content, 2019). Which is precisely why DL and DF must be taught to students at one point in their academic career, or at the minimum as a requisite for communications majors.

Formulation of Theory

Summarizing Observations

Presently, DCPs facilitate human communication by hosting VATs and tVATs. However, since antiquated platforms like PRT only hosted one VAT at a time, academia has the education of cVAT divided into curricula for each VAT. This ensures that students will be thoroughly instructed on a specific VAT's theoretical framework and that educators can provide clear avenues for students to pursue careers in the VAT's respective industry.

However, DCPs have transformed each respective VAT's industry and raised the expectations of every graduate entering the job market. Therefore, there is an apparent necessity for academia to alter its approach to cVAT and the ontology of content. In addition, academia has yet to sufficiently prepare graduates for the job market because it lacks the ability to accurately measure a student's DLL. Graduates entering the job market must understand the theoretical frameworks of each VAT because DCPs can host multiple VATs and kVATs. Therefore, the study of communication needs to embrace the concept of platforms which can host multiple VATs and kVATs.

Problem Statements

First of all, since humans have adopted the use of DCPs as a principal means of communication, what must educators do to provide students the proper theoretical framework they need for careers in a job market which now rewards being DL?

Secondly, because DCPs can host multiple VATs and kVATs, there is an urgent need to organize tVATs by something other than just the VAT they are, so how can academia better organize tVATs and what does this change in the ontology of content mean in practice?

Ontology of Content

An overview of the past 30 years confirms that DCPs have become the foundation of human communication. It is for this reason that a focus on the ontology of content is necessary to properly address the implications of this rapid evolution. DCPs organize tVATs into CCs by kVATs. Due to the fact that there is little writing in academia on this level of ontological specificity regarding content, I have formalized the type/token relationship between VATs and tVATs and their role in the structure of DCPs' CCs.

There are four types of content: video, audio, text, and still images. It used to be the case that in order to consume VATs, you needed to use their respective platform. But since DCPs can host multiple VATs, new CCs had to be developed to host specific types of tVATs. tVATs have always existed, but there was never a reason to organize them by something other than by their VAT. This lack of an accepted supposition towards an ontological structure of content which can take into account DCPs' ability to host multiple VATs and kVAT is the main issue in the current study of communications. Bearing that in mind, I propose that tVATs can only exist in these three types (kVAT): macrocontent (maVAT), microcontent (mcVAT), and minicontent (mnVAT). As it stands right now, how long it takes to consume a tVAT is what decides what kVAT it is: mnVAT can be consumed in less than 5 minutes; mcVAT can take anywhere between 5 and 30 minutes; maVAT takes longer than 60 minutes to be consumed.

To illustrate this concept, I will match each ontological term to its matching real-life counterpart starting with Instagram as the DCP. Inside Instagram, users can post to and consume content primarily from stories, the feed, reels, and Instagram TV (IGTV). Each of these are Instagram's CCs that host specific types of tVATs for humans to consume.

Instagram originally only had one content channel, the feed, and was solely used to post and consume still imagery. Later, improvements in data storage and an increase in bandwidth also allowed Instagram to evolve and host more than just one VAT and kVAT. It was only natural for Instagram's feed (CC) to incorporate video posts (VAT) since the success of Vine (DCP) proved that people were willing to consume at least 6-second videos (mnVAT) on their mobile devices.

I hold the same sentiment towards Instagram's implementation of Snapchat's (DCP) stories (CC) feature which hosts videos (VAT) that are at most 15 seconds (mnVAT). Stories introduced a CC that is consumed differently than Instagram's feed (CC), most recently, the introduction of IGTV (CC) is displaying Instagram's intent to become the ultimate DCP. While regular users can only post videos that are up to 10 minutes long (mcVAT), verified users get a 60-minute limit which means that Instagram can host every VAT and kVAT. Audio can be hosted in the form of voice messages in the direct messaging window and text is displayed in every post caption and comment. After paving the way for mobile-centric DCPs, Instagram witnessed the introduction of new DCPs which provided humans alternate CCs, by immediately adopting the new CCs Instagram evolved into a more versatile DCP that is able to host all VATs and kVATs.

In 1996, Bill Gates expressed the belief that broad opportunities exist for most businesses through the supplying of information or entertainment and that no business is too small to participate (Content, 2019). This accurately depicts the landscape of DCPs in 2020:

businesses are using DCPs like Instagram to supply consumers with information and entertainment in the form of tVATs. Before DCPs, businesses had to spend money on the production and distribution of advertisements (tVATs) in order to communicate with their consumers. The length of these advertisements and when or where they were placed sometimes resulted in businesses spending significant amounts of money. Businesses did not have a choice because the creation of culture requires specific technologies for storage and communication, and the platforms of the time were PRT. Unlike DCPs, which can host a business' tVATs for free, PRT's CCs are too expensive and exclusive to serve as a primary platform for businesses to openly communicate with consumers.

In addition, culture also calls for the use of human creativity in the process of cVAT (Fuchs, 2016). The idea of a business outsourcing their cVAT to a third party should not be a standard; instead businesses need to start hiring employees who are DL enough to help create meaningful content to communicate the businesses' messages on DCPs (Content, 2019). DCPs offer businesses a platform to store tVATs. If businesses can hire workers whose DL includes cVAT, then the goal of creating culture is extremely attainable.

Having said that, while it is clear that academic attention on the ways that students engage with technology has moved beyond teaching device-centric computer literacy frameworks (Brown, 2016), this is likely due to the fact that the adoption of DCPs have caused humans to start using technologies at an earlier age. Ultimately leading to a greater population of students who have at least an elementary DL. However, academia has still not provided a curriculum to test individuals' DL. Since DCPs have been adopted by businesses as a primary method of communicating with consumers, DL should become a priority in academia as a whole, but most importantly in the study of communications.

A Call on Academia

Throughout my research in human communication, the public sphere, and modern digital technologies, the importance of content is frequently highlighted. However, only a few instances consider cVAT or the resources it takes. There is also a lack of ontological research regarding the implications of DCPs on VATs and kVATs (Content, 2019). Insights from this area can be consequential in the future study and instruction of communications. As recently as 2019, there had been calls for further detailed research into cVAT (Content, 2019).

Lukács' ontology of society draws a parallel between culture and economy that laid the ontological foundation for a concept where there are workers who have distanced themselves from physical materials because their outputs only exist on DCPs (Fuchs, 2016). Research also indicates that DL can get students to a space where they are agentic and able to use technology in support of their conscious purposes (Brown, 2016). Developing an exam which accurately assesses a person's DLL is the first step in the advancement of communication studies. After this development, a standardized curriculum can be constructed to equip students with the skills the exam is testing for.

Building a Test

At this point, we have concluded that DCPs have become foundational for the future of our society and the evolution of human communication. On DCPs, humans communicate via the VATs and tVATs that the respective platforms host. Being DL is being able to understand the content that other humans have shared for you to see. On the other hand, there also exists digital fluency (DF): the ability to create content that can communicate your ideas. In order to

prepare graduates for the job market, the study of communications must evolve to incorporate the recording, editing, and communication of all VATs. Since text communication has been the main VAT academia has used, literacy and fluency tests measure humans' ability to comprehend and communicate ideas via text. Now, I propose the building of a test which can measure a human's ability to comprehend and communicate via DCPs.

The first part in building the DLT (digital literacy test) was finding a way to group different VATs and tVATs in a way that examined a person's ability to associate a VAT and tVAT with a different tVAT of a different VAT. The reason this organization of content is required is because in cases such as "The Adventures of Sherlock Holmes," the story was communicated by humans to other humans first as text, but eventually every other VAT. These copies provide multiple tVATs of "The Adventures of Sherlock Holmes" which are different VATs but the same kind of kVAT, maVAT.

With this in mind, the challenge became forming a test surrounding the similarities and differences between tVATs of different VATs which are used to communicate different-sized ideas. Eventually, I landed on the three major kVATs which I explained allow humans to communicate via DCPs' CCs: maVAT, mcVAT, and mnVAT. Still images by nature are instantly consumed and often take time to be fully comprehended. However, the level of comprehension required for a still image is up to the consumer. For instance, consuming the idea of the Mona Lisa is basically instant. But analyzing the paint strokes, colors used, and symmetry is not required for a comprehension of what the artist was trying to communicate: a portrait of a woman. In order to understand the context of the painting, humans have to consume other content with information about the painting such as who painted it, where it was painted, and why it is so popular. Without the context provided by other VATs, a viewer cannot discern

anything about the painting or its historical significance. For this reason, I do not include still images as a part of the DLT. The tVATs of still images can only ever be considered mnVAT.

People should be able to intuitively associate tVATs of one VAT with other tVATs of different VATs but of the same kind of kVAT. Simply put: The DLT asks participants to choose which tVATs of a specific VAT match other tVATs of the same kVAT but different VAT. I created the following question template so that the instructions would be consistent:

Which of the following [tVATs] do you find most similar to: [tVAT of a specific kVAT and different VAT than the answer pool]? (Select all that apply).

An example of a question is:

Which of the following types of text content do you find most similar to: A Film? (Select all that apply).

For answers, I showed the same pool of answers for each VAT that was being examined. The question above had the answer pool from the text group in Table 3.5.1 below.

VAT	maVATs	mcVATs	mnVATs
Video	Film	TV Show Episode	GIF
	Video Podcast	A Vlog	Dance Video
	Documentary	Music Video	Lip Sync Video
Audio	Audio Podcast	Song	Jingle
	Musical Album	Radio Interview	Voice Message
	Audiobook	Standup Comedy	Excerpt of a Song
Text	Book	Short Story	Message
	Magazine	Book Review	Infographics
	Research Paper	Blog Entry	Recipe Item List

Table 3.5.1

As you see in the table, each VAT has a generic set of tVATs for each kVAT. The entire test was randomized asking participants to match each tVAT in Table 3.5.1 with tVATs of other VATs. The following qualitative questions were asked to gather more context:

- What age group are you in?
 - Under 18
 - 18 - 24
 - 25 - 34
 - 35 - 44
 - 45 - 54
 - 55 - 64
 - 65 - 74
 - 75 - 84
 - 85 or older
- Which generation are you?
 - Baby Boomer
 - Gen-X
 - Millennial
 - Gen-Z
- How Digitally Literate do you think you are?
 - DL 4 - Advanced
 - DL 3 - Proficient
 - DL 2 - Intermediate
 - DL 1 - Elementary

By including these qualitative questions, I am able to later focus on the results of specific groups who share similar qualities. By knowing a participants' generation and expectations, we can look at data from people who have an accurate sense of their DLL and see what the test does correctly. Likewise, we can take a look at data from people who do not have an accurate sense of their DLL and see how the test can improve. After finalizing a test, academia can create a proper curriculum that teaches students the concepts of the test while also preparing them for the skills needed when they enter the job market.

I created the test on the website Qualtrics, and I distributed it through my immediate connections on Instagram and Twitter. I asked people to take a test if they are interested in the

development of a DLT, and provided the link: <http://digitalliteracy.mrcobas.com>. This meant that participants were interested in the topic because they navigated themselves to my website and answered the questions. Intent is needed for tests like this because the point is to want to measure your DLL for the sake of recognition in the job market.

Findings

After having made the distribution of the test public and allowing people time to take it, I collected results from 35 participants. Scores are calculated by counting how many correct answers you choose from the pool of tVATs, without taking points off for wrong answers. There is a maximum of 54 points that an individual can receive, with DLLs being broken down into:

<i>Literacy Level</i>	<i>Score</i>
DL 4 - Advanced	40.5 - 54
DL 3 - Proficient	27.5 - 40.5
DL 2 - Intermediate	13.5 - 27.5
DL 1 - Elementary	0 - 13.5

Table 3.5.2

Of the 35 participants, 24 of them got DL 2, two groups of five participants got DL 1&3, and only one participant got DL 4. The complete breakdown of scores reveals a disproportionate number of participants who believe to be more DL than they actually are. This is in accordance with my hypothesis that academia needs to improve the instruction of communications. By taking a look at Chart 4.1 below, it becomes clear that most people are already capable of understanding basic theoretical concepts about digital content used for communication on DCPs.

Overview of Scores

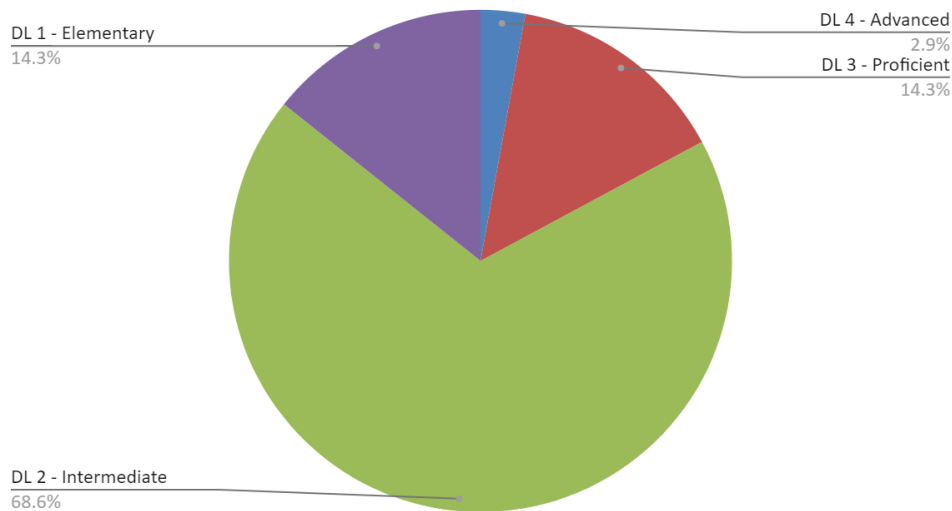


Chart 4.1

In the figure you can see that a majority of participants ended with an intermediate level of DL, which is indicating that most of those who took the test are already in a good position to improve their DLL. This could have served as a counterpoint to my hypothesis that academia has not properly prepared students for the job market, but that was only if a majority of participants had gotten the score they expected. Only 13 participants of the 35 received the score they expected. Only two did not receive the score they expected and got a higher DLL, every other participant scored lower than their expectation. After talking with many people who messaged me after taking the DLT, they expressed that they did not properly read the instructions and therefore did not realize that they could choose more than one answer for each question. This leads me to believe that they are more likely to correctly identify tVATs of the same kVAT if they were taught the same theoretical frameworks regarding content that I used to create this test.

Overview of Expected Scores

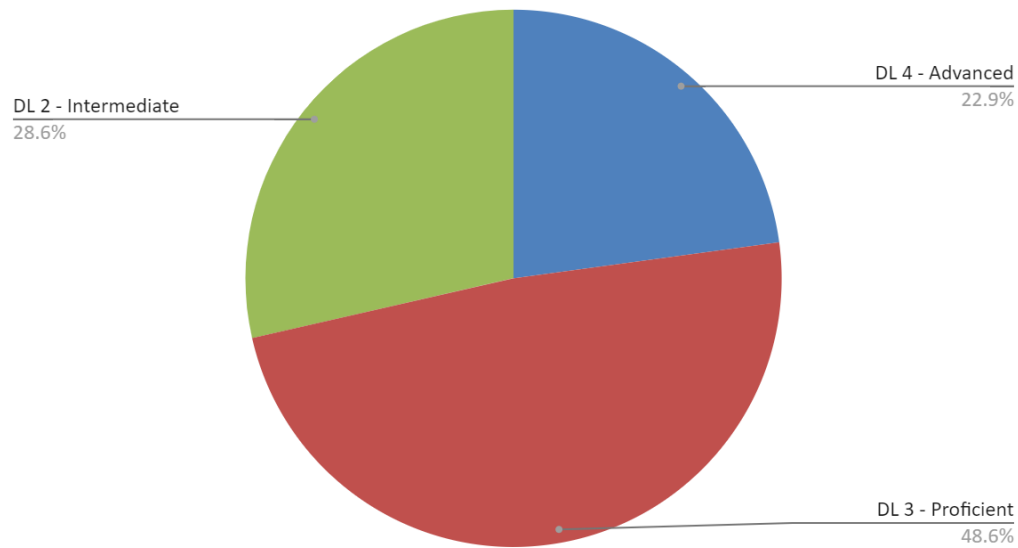


Chart 4.2

After taking a look at the breakdown of participants' expected scores, one can see that participants anticipated being more DL than they actually are. It is also interesting to note that none of them believed they had an elementary DLL.

A comparison I drew in my head was to the process of humans learning to speak: at first, you learn how to form syllables, then you are able to form short sentences which you use to communicate to others, and after learning to speak you learn to read. For DL: you learn how to publish VATs by first learning to write text and record audio or video. After humans learn to publish content, they begin to read, listen, and watch how others publish theirs. In this framing, the results are probably the effect of participants frequenting DCPs and thinking they are able to comprehend the theoretical frameworks of each VAT simply because they have experience posting on certain DCPs. But like learning to speak and then to read, just because you know how to create tVATs does not mean you understand the differences in the ontological

relationship between the different kVATs. This suggests that humans most likely know where certain tVATs exist, but do not understand the nuanced differences that determine where each tVAT can exist. What I am describing is a person's digital fluency, but again, a digital fluency test (DFT) needs to be further developed.

Population Makeup (by GEN)

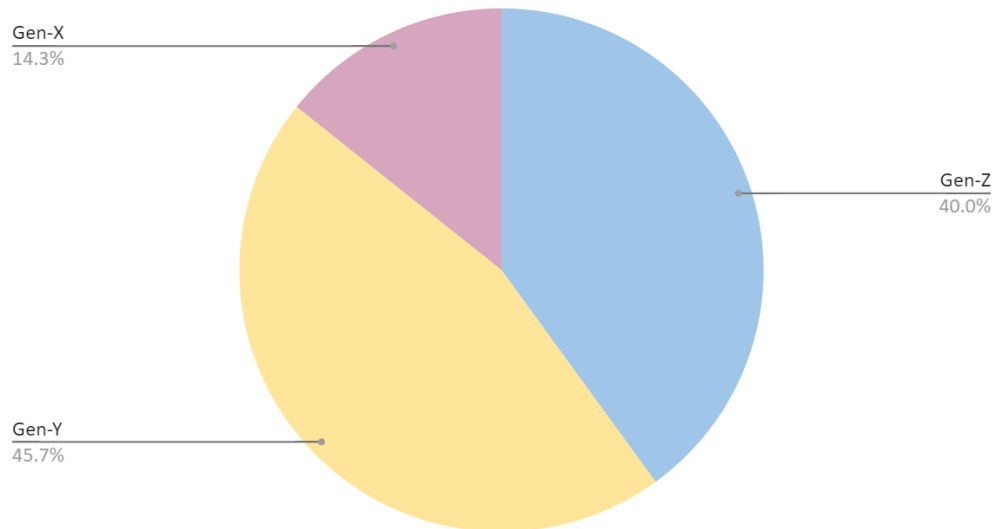


Chart 4.3

If we only take the results of participants who had an accurate sense of their DLL before the DLT, the figure shows that the group of 13 people is made up predominantly of Gen-Y and Gen-Z. Since I promoted the DLT on my Instagram and Twitter, and since my followers are largely younger than 30, it makes sense that only one person from Gen-X was able to both take this test and accurately assess their own DLL. To summarize, it is clear that a majority of participants thought they were more DL than they actually are, and also that a majority of participants, 68.2%, are at an intermediate level of DL. Again, this is a good sign that on

average people have become DL naturally over time, but a clear sign that there is room to improve the study of modern human communication.

Discussion

How Academia can Respond

In order to address the proper instruction of modern human communication and cVAT, I have drafted a 15-week course that would cover the theoretical frameworks of each VAT, the possible tVATs of each VAT, and the significance of kVATs on the effectiveness of communication. The course would be a required credit for every student who is majoring in communications. It would be divided into four, three-week quarters, each covering a specific VAT; one week from each quarter will be dedicated to a step in the respective VAT's cVAT process. The first week would be devoted to an introduction to the class, a week after the first two quarters would be dedicated to midterm examinations, and the last week after the fourth quarter would be reserved for finals.

Introduction (Week 1)

The first week of the course will introduce the ontology of content and how the evolution of human communication was accelerated by the emergence of DCPs. Students will also explore the concept of platforms that can host multiple VATs and kVATs. By the end of the first week, students will become familiarized with the ontological reasons for the changes in the industries of each VAT and why it is imperative for their future in the job market to understand the theoretical frameworks of the content humans use to communicate. Forming a class group chat, adding each other on social media, and making at least one friend are the assignments for this week because the purpose of this course is to prepare students for effective communication in real-world situations. Students will also begin brainstorming topics to write a research paper on in the first quarter and create still images to represent during the second quarter. In the third and fourth quarters students will record audio and publish a video presentation on their chosen

topic. Each of the quarters' three weeks would be dedicated to the preproduction, production, and post-production of each VAT and will be represented by the assignments due at the end of the week. These will provide students with the theoretical frameworks of cVAT for each VAT. Aside from the main assignments, students will also interact with each other each week by posting a tVAT on the class forum and then replying to other students with two additional tVATs of the same VAT the quarter is focused on.

	W1	W2	W3
Q1	Proposal	Outline	Paper
Q2	Diagram/Flowchart	Collection of Images	Powerpoint
Q3	Script Outline	Voice Script	Audio Presentation
Q4	Collection of Video	Edit Draft	Final Video

Table 5.1.1.1

Text (Weeks 2-4)

The first quarter of the course would start with an overview of text-based communication content. This is because text is the oldest form of communication, other than spoken word, and it is what academia has been most focused on. This would serve as a good introduction to principles of cVAT that apply to other VATs. The three main assignments are: a research proposal, an outline with quotes, and 4-to-6 page paper. This quarter's assigned weekly interactions will consist of 200-word posts on the class forum discussing the topics from the assigned tVATs and then replying to two classmates in under 280 characters.

Still Images (Weeks 5-7)

The second quarter of the course focuses on the creation of still images surrounding the topic students chose in the first quarter. The three main assignments are: a diagram/flowchart, a

collection of images related to the topic, and a 10-to-12 slide Powerpoint. This quarter's assigned weekly interactions will consist of one still image posted on the class forum related to the topics from the assigned tVATs and then replying to two classmates with one meme image.

Midterm (Week 8)

This week, students will combine the research paper from quarter one with the Powerpoint slides from quarter two and present their topic to the class in a 6-to-8 minute live Powerpoint presentation. There will be no interaction in the class forums required.

Audio (Weeks 9-11)

The third quarter of the course focuses on the creation of audio content surrounding the topic students chose in the first quarter. The three main assignments are: a script outline, a complete script, and a recording of an 8-10 minute audio presentation. Audio's weekly interactions will consist of one three minute audio recording posted on the class forum related to the topics from the assigned tVATs and then replying to two classmates in 30-second voice messages.

Video (Weeks 12-14)

The fourth quarter of the course focuses on the creation of video content surrounding the topic students chose in the first quarter. The three main assignments are: collecting videos by recording or downloading them, submitting a draft of the video for feedback, and submitting a final 8-to-10 minute video. Video's assigned weekly interactions will consist of one three minute video posted on the class forum related to the topics from the assigned tVATs and then replying to two classmates with 30-second videos.

Final (Week 15)

The final week of the course will be spent by students watching every video presentation and providing feedback to their classmates. During this week, there will be no interaction in the class forum.

Conclusion

This paper discussed how the past 30 years have resulted in the rapid evolution of human communication. This acceleration has been the result of a widespread adoption of DCPs which humans use to host various VATs in CCs that organize tVATs by kVAT. Since the current study of communications separates the instruction of each VAT into its own curriculum for cVAT, this approach demands an immediate reanalysis which takes into consideration DCPs' ability to host multiple VATs and tVATs on various CCs.

In addition to the obvious academic implications, businesses were also quick to adopt DCPs because unlike traditional platforms like PRT, DCPs were not exclusive or expensive. It is for this reason that DCPs now serve as a foundation for the creation of culture and as pillars for society. Because of this new standard, graduates entering the job market are expected to have a DLL that is sufficient for the creation and communication of content via DCPs.

However, while students have graduated with an accurate measurement of their proficiency in a certain language, academia has provided no method by which to gauge their DLL. This paper provides a theoretical framework for the ontology of content as it stands in 2020, a preliminary method of measuring a person's DLL by measuring their ability to match tVATs with other tVATs of the same kVAT, and the structure of a course which comprehensively covers each VAT and its cVAT process.

While humans have evolved to communicate faster than ever before, the study of communications has lagged behind and as a result, communication graduates are leaving programs with no real understanding of the implications the recent emergence of DCPs have done to the traditional industries of communication like PRT. Without adopting an ontology of content that takes into consideration the digital landscape of communication in 2020, academia will continue to fail their students. And while I do provide reasonable arguments and data from my preliminary DLT, further study is needed to formally address the concept of measuring DF and the formation of a curriculum on the proper procedures of that skill. All in all, academia must embrace a new standard for the ontology of content in order to improve its instruction in the study of communications.

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