

Analytics in PR Education: Desired Skills for Digital Communicators

Melissa B. Adams, Appalachian State University
Nicole M. Lee, Arizona State University

ABSTRACT

This exploratory study examined the analytics knowledge and skills agencies seek in new digital public relations hires and extends recent research on the topic of strategic communication analytics education. In-depth interviews were conducted with 14 senior managers at O'Dwyer's 2019 Top Independent Agencies. These professionals identified the analytic training and tool knowledge most desired in new hires. Results show that basic education in analytic measurement and data analysis is necessary preparation for the digital job market and that communication managers seek new hires with strong critical thinking skills with the ability to gain insights from multiple data sources. Effective communication of analytic insights and awareness of their implications for the organization or business were also noted as highly-desirable skills.

Keywords: public relations, social media, analytics, evaluation

Public relations, as both practice and discipline, has been described as being in a state of reinvention due to the availability of digital data metrics and the rise of social media communication as strategic organizational communication (Daniels, 2018; DiStaso & Bortree, 2014). Consequently, public relations practitioners and researchers have discussed the need to include social media metrics and analytics education as part of public relations programs, to examine how it is being incorporated into classes, and to develop learning goals and pedagogy to support the process (Anderson & Swenson, 2013; Kent et al., 2011; Stansberry, 2016; Wiesenberg et al., 2017). Researchers recently proposed a concise list of learning outcomes for undergraduate courses (Ewing et al., 2018).

The dashboard reporting model adopted by marketers and advertisers is now the expected norm in public relations practice as is the use of common evaluation language of digital measurement (click-throughs, conversions, etc.) However, effectively communicating analytic insights using industry language is often a struggle for both practitioners and academics due to the unfamiliar terminology (Sanchis, 2019) and the fact that this technology is relatively new and constantly evolving (unlike traditional research methods). The advent of new digital measurement guidelines such as Barcelona 2.0 has also contributed to the urgency of the need for public relations curriculum to evolve and include analytics training as part of the new standard (Association for the Measurement and Evaluation of Communications [AMEC], 2015; Commission on Public Relations Education [CPRE], 2018).

Therefore, public relations educators are challenged with the development of analytic skills and digital measurement knowledge in order to incorporate training into existing curricula. This scramble to “skill up” to meet the needs of students and demands of the job market means that there has been a great focus on attaining certifications, but little research has been done to determine if this training aligns with the actual

needs and expectations of the profession. Although recent research has noted that the skill set of public relations instructors should be updated to address digital media skills and measurement, there are differences in opinion between academics and professionals on how and what should be learned to bridge this gap (Shen & Toth, 2013). In addition, because digital public relations evaluation includes multiple social media and content metrics, experience using basic analytics tools and social media research methods to develop holistic performance insights would provide students valuable training in critical thinking, and would help them understand how such measures contribute to better understanding organizational publics (Kent, et al., 2011; Stansberry, 2016; Waddington, 2017).

More recently, public relations educators have called for an integration of analytics training at the programmatic and course levels to address this need. Analytics education should be incorporated into existing curriculum such as public relations campaigns capstones and not just taught as stand-alone courses or as part of social media courses only (Adams et al., 2019). Just as social media practice is now deeply integrated into public relations practice, analytic thinking and analysis are increasingly important and therefore, this training should be included in core courses as well as social media management courses (Adams et al., 2020).

Considering the challenges of keeping up with the technology and the differing opinions on digital measurement training within academia, this exploratory study was designed to identify the analytics knowledge and skills that public relations agency managers expect and value most among new hires. The study also extends recent research (Ewing et al., 2018) that recommended analytics learning outcomes by comparing those outcomes to practitioner expectations in the current job market.

Specifically, this study attempted to answer the following research questions: What analytic skills and training are agency professionals

seeking in new hires? What specific social media listening and analytics tools and certifications are most valued by agency managers? And, what emergent skills or training are becoming necessary in digital analytics?

Literature Review

Public Relations Measurement and Reinvention

A number of evaluation frameworks have been promoted for public relations in the years preceding digital practice, including those that incorporated media effects metrics (awareness and intent for example), business measures such as “ROI” (return on investment), and the tabulation of various outputs (including AVEs or Advertising Value Equivalencies) (AMEC, 2016; Lindenmann, 2005; Michaelson & Stacks, 2011; Watson, 2012). So many measures and evaluative frameworks have been proposed in public relations scholarship that Lindenmann argued that there were ample measures available for use—the issue was instead for practitioners to do a better job of getting management to recognize and support public relations efforts (Lindenmann, 2005). However, as social media and “new media” became part of professional practice, practitioners were challenged with how best to measure and report their effectiveness, and academics have struggled to keep up with evolving digital communication platforms, terminology, and best practices (DiStaso & Bortree, 2014; Freberg & Kim, 2018; Sanchis, 2019; Zhang & Freberg, 2018).

In her overview of new media research in public relations, Sandra Duhé (2015) identified the theoretical applications and extensions that have been explored in academic research since the dawn of digital public relations practice. Theoretical contributions to crisis communication, two-way communication, and ethics have been published in public relations journals in numerous studies. However, Duhé’s exhaustive survey does not mention how digital public relations measurement has been studied or how these new measures have influenced recent research or theory-building.

This is not an oversight; instead, this omission simply points to the need to reconceptualize public relations measurement as an integrated element in digital media—measurement that is immediate, continuous, and easily accessible.

Social media has forced academics as well as practitioners to rethink PR as a digital practice requiring new conceptualizations of public-organization communication (Daniels, 2018; DiStaso & Bortree, 2014; Stansberry & Strauss, 2015) and research and evaluation (Daniels, 2018; Kent, 2001; Macnamara, 2014a, 2014b, 2018; Macnamara & Gregory, 2018).

The last decade has brought a host of new measurement frameworks, tools, and standards to support the evaluation of digital public relations campaigns. Perhaps most significantly is AMEC's (International Association for Measurement and Evaluation of Communications) announcement of the Barcelona Principles in 2010. The result of an international collaboration, the seven principles address the affordances and challenges of social media communication and refocused evaluation on outcomes rather than simple outputs (AMEC, 2010). The principles note that social media efforts should be measured, and AVEs (Advertising Value Equivalencies) should be abandoned as they are not public relations (AMEC, 2010).

Following the announcement of the Barcelona Principles, scholarship on the history of public relations measurement traced the progression of traditional measures (outputs such as counting media impressions) to the incorporation of business measures in the 1990s (such as KPIs or key performance indicators) and their integration into the more holistic, outcomes-focused, digital evaluation framework (Macnamara, 2014a; Watson, 2012). One problem noted was the fact that social media platforms and the tools designed to manage and measure social communications all used different types of measures (Marklein & Paine,

2012). This issue was acknowledged in discussions of valid metrics for social media during the 2012 Social Media Conclave and the development of social media standards for measurement proposed by the Digital Analytics Association in 2013 (Macnamera, 2014b). New evaluation models also included the holistic perspective afforded by the Barcelona Principles to include outcomes as well as outputs and consider qualitative measures and methods such as social listening (Macnamara, 2014a, Macnamera & Gregory, 2018).

Due to the rapid evolution of digital media platforms and the adoption of social media in professional communication, the Barcelona Principles were expanded in 2015 to focus more on “what to do” rather than “what not to do,” according to David Rockland of Ketchum and AMEC working group member (Rockland, 2015). He explains Barcelona 2.0 as more holistic overall to account for all of professional communication (not just public relations) and to include qualitative methods in recognition of the need to understand context and color in social media conversations (Rockland, 2015). “Barcelona 2.0” retained the original emphasis on impacts and outcomes of communication campaigns and recognized the further integration of public relations, advertising, and marketing functions within organizations (AMEC, 2015; USC Annenberg Center for Public Relations, 2017).

The processes of reinventing public relations evaluation are still in evolution (Schriner et al., 2017). This study of Silver Anvil Award winners discovered that many of the campaigns still placed less emphasis on outcomes and more on outputs and some still included AVEs as a measure. The authors argued for the further incorporation of more holistic and robust measures, especially regarding social media evaluation that should account for online conversations and community engagement (AMEC, 2015; Schriner et al., 2017).

Digital Public Relations Education

Considering this evolution of the profession, the need for new best practices and the demand to measure efficacy, digital public relations education research has understandably focused on teaching social media tool knowledge, professional certifications (Freberg & Kim, 2018; Kinsky, et al., 2016; Stansberry & Strauss, 2015), and the expansion of professional ethics to address the realities of digital communication (Bowen, 2013; DiStaso & Bortree, 2014; Neill & Schauster, 2015). However, recent studies and industry experts have also pointed to the need for public relations education to focus on core public relations skills training such as writing and strategic thinking as social media and its digital measures continue to develop to account for interactivity, engagement, and conversational contexts (Anderson & Swenson, 2013; Neill & Schauster, 2015; Tam & Kim, 2019). This call to retain focus on core public relations skills in the age of social media practice reinforces findings from Paskin's (2013) survey of 113 communication professionals. According to Paskin, interview results showed that:

...skills such as writing, communication and strategic thinking over more novel skills, since these new skills depend on mastery of the basics. In essence, the results can be interpreted as showing that public relations professionals surveyed still expect, above anything, that graduating students receive a solid education of the basics skills before moving on to newer technical skills. (p. 252)

According to the most recent Commission on Public Relations Education report, research and analytics was one of the top four needed skills for entry-level hires according to both practitioners and educators (2018). Research and analytics, data analytics, and measurement and evaluation were also the three most desired areas of knowledge as noted (CPRE, 2018). Therefore, both analytics and digital measurement skills training and knowledge acquisition were at the top of the list of needs for

public relations education according to the study.

Krishna et al.'s survey of public relations practitioners also confirmed that writing is still generally acknowledged as the most essential skill for new hires, but research and measurement skills were also noted as very important, especially among early career respondents. This study's findings support those of the most recent CPRE report and underscore the continued importance of writing skills, yet they also indicate that employers desire new hires with creative, critical, and analytical thinking abilities, as well as problem-solving and measurement experience (CPRE, 2018; Krishna et al., 2020).

Clearly, professional communicators are seeking a blend of skills in new public relations hires—both traditional skills such as writing and strategic thinking—with the addition of some experience in analytics and data analysis (Freberg & Kim, 2018; Kim & Freberg, 2016). According to a PRWeek report by Daniels (2018), industry professionals mostly looked for analytic thinking ability in new hires as well as the ability to write well and produce digital content. Considering the industry desire for a blend of traditional skills and digital analytics experience, it has become clear that there is an increasing need to incorporate analytics and data analysis into the public relations curriculum.

Analytics in Public Relations Education

Although basic skills are still highly regarded as the necessary “core” of public relations training by industry, the need for understanding analytic measures and expanding strategic thinking has been called for by both scholars and the industry. Indeed, building from Barcelona 2.0 and the changing profession, researchers argue that there is a strong need for analytics and data analysis to be introduced into the public relations curriculum (Chung & Taneja, 2016; Kent et al., 2011; Kim & Freberg, 2016; Stansberry, 2016).

Many traditional measures and evaluation frameworks are still

useful, but others are troublesome in digital public relations contexts. For example, AVEs are still appearing in award-winning campaigns or as revamped new media measures (Schriner et al., 2017; Waddington, 2017) when more holistic analytic measures that account for context and social media communication between publics and organizations are available for digital campaign components (Ewing et al., 2018; Kent et al., 2011; Schriner et al., 2017). Despite Lindenmann's 2005 argument that there are ample tools to use to measure public relations efforts, the evolution of digital platforms continues to spur the development of new digital tools and measures.

Additionally, as practitioners have had to expand their basic skills to be able to evaluate social media efforts and communicate digital insights to management, digital analytics have increasingly become a key component of industry training and the public relations curriculum. Analytics, which is the method of logical analysis according to Merriam-Webster, is (in the simplest terms) the analysis of aggregate data. Analytics is the practice of considering multiple points of data or metrics (outputs) to arrive at insights and recommendations for reaching business goals or in the case of public relations, desired communication and relational outcomes.

Social media and web analytic tools such as Google Analytics have user-friendly interfaces that support both interpretation and communication of metrics and insights by novice as well as experienced communicators (Tam & Kim, 2019). Analytic data is especially helpful in social media listening (research) and evaluation as organizational digital platforms support real-time data collection, and insights can be gained quickly (Tam & Kim, 2019). This insight into audience social behavior is critical to digital public relations practice as it allows messages to be adapted or revised to address immediate needs as well as changing trends (Chung & Taneja, 2016; Wright & Hinson, 2017) and captures the impacts

of online conversation on organization-controlled media such as the company website (Kent, et al., 2011). However, academics often struggle with how to approach analytics and digital evaluation pedagogically as many of the reporting tools and analytic platforms are proprietary, allowing only paid access, and social media sites continue their rapid evolution, making it difficult to keep up with the latest developments (Ewing et al., 2018; Freberg & Kim, 2018; Zhang & Freberg, 2018).

Methods for teaching digital public relations were investigated by an early proponent of analytic research and analysis (Kent, 2001), with the utilization of data from the internet taking center stage. Ethical issues such as tracking customer's buying habits and personal preferences were the focus, and assignments for a curriculum were proposed (Kent, 2001). This initial inquiry has expanded as the need for strategic and analytical thinking in practice has grown in alignment with the use of digital marketing and communications management suites such as Marketo and social media management and measurement tools like Hootsuite. Competency in analytics and such tools as evidenced by certification has been incorporated into public relations, advertising and marketing courses as studies have noted that this training provides young professionals with an advantage on the job market as employers seek evidence of social media and content management skills (Kent et al., 2011; Kinsky, et al. 2016; Freberg & Kim, 2018).

However, only recently have scholars begun to examine how digital analytics have been included in public relations courses. Ewing et al.'s 2018 study examined public relations course syllabi and the results of a Twitter chat on the topic to consider the skills and concepts included in these classes, as well as what learning outcomes (related to analytics) and what social media methods and certifications were included. The authors found that despite the critical need for positive student learning outcomes for analytics training, few of the syllabi they examined contained clear

competencies (based on their wording).

With the growing efforts to measure and evaluate digital activities, analytic competencies were a natural focus for social media and communication courses. Thus, it was expected that courses would have clearly identified learning outcomes for students related to digital analytics. However, few courses had outcomes specifically mentioning analytics. While educators embedded analytic concepts and training within their courses, the wording of their learning outcomes did not reflect the focus on digital analytic competencies. (Ewing, et al., p. 70)

Based on their study findings, ten analytics learning outcomes were proposed for educators to consider including in their syllabi and incorporating into future courses including using analytics tools and technologies to capture data, generate reports and glean insights and obtaining Hootsuite and/or Google Analytics certifications (Ewing, et al., 2018).

Recent research on the topic has also illustrated that students who had passed the Google Analytics certificate tests were highly interested in learning more about analytics (Meng et al., 2019). Additionally, Brunner et al., (2018) examined public relations job advertisements to identify skills and knowledge desired in new hires and found that most listed managerial skills such as project management. These researchers noted that knowledge of measurement and social media strategies and analytics would fall into the category of desired “managerial skills” listed in some job postings. Similarly, other recent studies have confirmed that professional public relations managers want to hire individuals with digital analytics and management training (Bajalia, 2020) as well as strong writing, critical thinking skills, and basic business acumen (Krishna, et al., 2020; Meng et al., 2019; Ragas, 2019).

The current research project builds on this previous study in an

effort to identify which (if any) specific analytics skills and training industry professionals were seeking in new hires. Three research questions were developed to expand Ewing et al.'s initial investigation into analytic training incorporated into communication courses, while taking into consideration recent arguments for the need for both traditional skills and expanded strategic thinking and digital analytics training in public relations curriculum. Specifically:

RQ1: What digital analytics skills and training are agency professionals seeking in new hires?

RQ2: What specific social media listening and analytics tools and certifications are most valued by agency professionals?

RQ3: What emergent skills or training are becoming necessary in digital analytics?

Method

To answer these research questions, a series of respondent interviews with digital public relations and communication managers at leading agencies was conducted in February and March of 2020. The 2019 O'Dwyer's listing of the top independent agencies was used as the sampling frame. Researchers contacted public relations, digital media, and analytics professionals at the top fifty agencies of the O'Dwyer's list via direct email and LinkedIn direct messages with focus placed on practitioners who did analytics work and hired or supervised entry-level professionals engaging in analytics work. A total of 14 respondents participated in telephone interviews with the two primary researchers. Their job titles included Chief Analytics Officer, Senior Digital Strategist, Senior Vice President of Social and Digital Media, Senior Advisor, and Digital Account Executive.

After Institutional Review Board review and approval, researchers conducted the interviews using a standard interview guide (see appendix) that included questions regarding the respondent's role at their agency,

skills they most want to see in new hires, and any emergent skills or training they believe are becoming necessary to the profession of digital public relations and campaign measurement.

With the participant's permission, all interviews were audio-recorded. Interviews averaged 24 minutes in length and totaled over five hours of recorded data. After each interview, the recording was transcribed verbatim resulting in 96 pages of single-spaced text.

Coding and Analysis

Following transcription, both researchers analyzed the interview data to identify themes related to the three research questions. This thematic analysis, which followed Smith's (1995) five-step process, was both inductive and deductive in its approach. It included specifically identifying responses corresponding to analytics education outcomes from previous research (Ewing, et al., 2018) but also allowed for emergent themes. The researchers independently read all transcripts multiple times. The transcripts were first read through without taking notes; upon the second reading, researchers highlighted sections relevant to the research questions and listed topics or codes relevant to the research questions. The researchers worked together to collapse these codes into broader themes or categories. Finally, researchers reread the transcripts to identify exemplar quotes that demonstrated the themes.

Results

Results indicate that the analytic skills and training most valuable to these professionals are not tool-specific certifications, but rather critical thinking and general measurement or analytics knowledge. Respondents also noted the need for new hires to have a general understanding of how analytic measures and metrics relate to business and organizational goals. This extends to having the mindset to consider public relations outcomes as both results and potential opportunities that organizations might leverage.

Even though some certifications were noted by professionals, few felt it was important for new hires to know how to use specific tools. Instead, they noted that it was more important to understand the measurement concepts behind them. Although there was little consistency among respondents regarding preferred analytics tools, most professionals reported that Google Analytics was valued more than other platform experience or certifications. When asked about emergent skills, professionals noted that a basic understanding of digital marketing measures and influencer marketing is valuable in today's digital agencies where integrated campaigns are generally the norm (USC Annenberg Center for Public Relations, 2017). Respondents also noted the emergence of more holistic measures for earned media such as story "trending" and "resonance" or pull-through.

Each of these study findings is discussed in more detail in the following section, arranged by theme in relation to the specific research question addressed. Anonymous respondent quotes are included for illustrative purposes.

RQ1. What analytic skills and training are agency professionals seeking for new hires to have in regard to analytics?

Four common themes emerged from the interviews to address this research question: critical thinking, general measurement knowledge, general business knowledge, and effective communication of data insights.

Critical Thinking

One of the most consistent themes to arise during the interviews was the perspective that critical thinking and problem-solving skills are more important than skills or experience using any specific analytics platform. All study participants commented in some way to underscore the importance of critical thinking in digital public relations and the need to provide students with integrated learning opportunities as part of their preparation for the job market. According to one respondent:

Kind of what I look for is... are they thinking about best practices, but also, can they? Do they think in terms of, “Our clickthrough rate was up this month compared to last month—what does that mean?” You know, are they thinking about, “How do we track compared to sort of generic benchmark rates, or how are we looking compared to the same time last year? What does that mean for them?”

Another interviewee similarly noted:

It starts with being a good information consumer and a sort of literacy—we have no shortage of data! It’s a matter of can these individuals look at data and understand what it says and maybe what it doesn’t say (or) what we might be able to determine from it...

General Measurement/Analytics Knowledge

This theme is related to critical thinking but many professionals commented on the need to have a general understanding of research and measurement that is not necessarily tied to specific online metrics or tools. Several interview respondents pointed out that it is just as important for digital communicators to understand what tools or specific metrics can’t tell you as much as what they can tell you, such as being able to gauge engagement more holistically via content or website analytics versus relying on simple social media metrics. This finding aligns with critical thinking skills as they relate to the development of analytic skills and the ability to develop actionable insights from data. One participant described this as well as the need for knowing what questions to ask of the data:

It’s really about understanding what the metrics mean. So, yes, we need to understand, especially if it’s an issue of understanding digital what sessions are, you know, where traffic is coming from, time on site, engagement, impressions, all of that. It’s really important for people to understand ...”What does that mean?” So,

you could say our site traffic went down this month, but the client doesn't necessarily share that (understanding). OK, why? What does that mean? What can you tell me from that? What if we do that differently? Being able to take those tools, read them, and yes, pull the numbers—but then understand what that means, and what we should be doing about it.

Several of the professionals specifically noted the need for new hires to have a general understanding of how analytics relate to specific business goals and be able to communicate this effectively with clients and managers. For example, one respondent noted this as understanding what metrics should be used to illustrate public relations impacts, “A lot of what is really important for us is making sure that we're communicating with clients the right metrics, but also the appropriate ones (for) PR.” Another respondent described this ability as synthesis:

We really want to make sure that, you know, any new hires are able to synthesize sort of the business objectives that we see from our clients—be able to convert those—and kind of translate those into a holistic sort of tracking and analytics approach. So, for us, a lot of times that means incorporating everything from social media to Google Analytics ...

Effective Communication of Data Insights

Another common theme was the importance of professionals being able to effectively communicate the data they gather using analytics tools. Specifically, the need to explain findings to clients and answer client questions was mentioned by multiple professionals. This ability to derive and effectively communicate insights and make data-driven recommendations to clients and management emerged at some point in all of the 14 interviews conducted for the survey. As one study respondent argued:

At a minimum, I would expect people coming out of college to

understand that there is context so that you've got to understand how to get/pull it out of the numbers and then analyze them, not just spit out a bunch of numbers.

A second interviewee elaborated further, noting the need for contextual understanding of metrics:

Know that context is important.... at the minimum because I think a lot of times what I'll see from younger people or less experienced people, I should say, don't come in and spit out a bunch of numbers and reports and it's completely meaningless. You know, especially, our clients will look at a 12-page report and go, I don't know what the hell any of this means. Give me twelve pages of numbers and expect me to be impressed. You know, I would rather have one page of insight. And even if the numbers are bad, tell me that. Tell me what you're going to do to fix that and tell me what they need.

RQ2. What specific social media listening and analytics tools and certifications are most valued by agency professionals?

Two dominant themes arose from the interviews concerning the second research question: general knowledge of native platform analytics and social media management and listening tools. As previously mentioned, many professionals did not feel that it was important to know how to use specific tools, but rather to understand the concepts behind them and to be able to learn on the job. Once again, interviewees noted that it was the ability to draw actionable insights from the analytics drawn from various platforms was the most important thing they desired to see in early career professionals.

Interview respondents were asked to evaluate the usefulness of certification in various widely-used social media measurement, web analytics, and native platforms analytic tools on a five-point Likert-type scale where 1 was less important and 5 was the most important. Although

most of our analysis was qualitative, this quantitative portion allowed us to directly compare different tools. Results showed that Google Analytics certifications were highly valued ($M = 4.08$, $SD = 1.00$) as was Hootsuite and other social media management certifications ($M = 4.25$, $SD = 0.75$) as were evidence of Facebook and Twitter training ($M = 4.33$, $SD = 1.15$ and $M = 4.00$, $SD = 1.35$).

However, Instagram training ($M = 3.75$, $SD = 1.29$) was perceived as less valuable than Facebook and Twitter certifications due to these platforms' more developed analytics and reporting capabilities.

Proprietary platforms such as Brandwatch's Consumer Research (formerly Crimson Hexagon) and Meltwater were perceived as "nice to have" but not as important as Google Analytics training ($M = 3.42$, $SD = 1.44$).

General Knowledge of Native Platform Analytics

Most professionals felt it important for students to understand the basic reporting or insights offered by each platform but didn't feel knowledge beyond basic familiarity with the back end of social media platforms was needed. As one professional described:

We really want someone to know how to use a media tool ...how to use Google Analytics to analyze how your page search is running, know how to use a tool that Facebook has to make sure that your program is running... We (are) technologically agnostic. So, we don't necessarily just use HubSpot, or just use Marketo. We like to cross-platform.... So, again, it's not one specific tool, but it's an understanding of how tools work and how to take those tools (and using critical thinking) to say what they mean—what can I get from some of these analytics?

Social Media Management and Listening Tools

Unsurprisingly, there was little consistency among respondents regarding specific tools—they reported valuing what they used at their

agencies (as illustrated in the simple frequencies reported). However, during their interviews, professionals repeatedly returned back to note that that Google Analytics was valued more than any other platform knowledge or certification due to their opinion that this training and experience is highly-transferable to other platforms and digital measurement in general. One respondent explained:

So, whether it's, you know, Google Analytics certification or Google ad certification...as long as they had some level of looking at the numbers ... the platforms. I mean, they have their own quirks. But being able to look at a table of numbers that are being reported out from something and think about that is a skill that translates well across platforms. If you kind of get it for one, you can it's easy for you to get it for others.

Another professional used an example from a recent hiring process to describe their thinking:

(One) of the branches of my team is hiring for a junior right now. And we were doing a resume review a week ago. There are a few folks that have Google Analytics on their certification section and we definitely pull them out for a second look because it was two things. You can use that certification for the team at large. But it also speaks to a candidate's interest in sort of broadening their expertise so that they can speak, not about (not just) having experience (with) something, but actually credentialed experience. Hootsuite certifications I think are nice, but don't really move me much in terms of giving someone a second consideration for an interview, (but) Google Analytics—absolutely.

Other Certifications

Google Data Studio (and the introductory certification) was mentioned by several professionals due to its ability to integrate with Google Analytics and Google 360 platforms. Professionals noted it as a

useful tool and because the need to produce visualizations for reporting is an increasingly important skill for young professionals to master.

I would take Google Data Studio (training). It's really important because it lets you analyze a bunch of data layered on top of other data. You get a little bit more insight. No one ever talks about that is so important.

RQ3. What emergent skills or training are becoming necessary in digital analytics?

Finally, study respondents discussed some of the emergent skills that are needed for new professionals. Of those mentioned, new earned media measures such as “resonance” and a desire for new hires to have basic knowledge of integrated marketing and measurement including influencer marketing emerged as the most prevalent themes in the interviews. We also asked about the importance of storytelling skills specifically regarding storytelling with data (visually) and a few respondents noted that as a desired skill (but not as critical as being able to understand and communicate data-driven insights).

Influencer Marketing and Integrated Marketing Measures

In terms of emergent skills or what they see as becoming important in the industry related to analytics, several participants brought up influencer marketing and the need to evaluate the success of such partnerships. One of those individuals explained:

I would say that influencer work has become and continues to become incredibly important. That's something that I wish I would have learned more when I was in school or maybe during internships. It was one of the areas that I really didn't have a whole lot of experience with when I entered the job force. And so, a lot of people think like, “Oh, you're putting together an influencer program, like you can find a certain type of influencer that has like five hundred thousand followers and they'll benefit a brand!”

But they don't necessarily understand that they might have five hundred thousand followers but the percentage of how many followers the person has that are actually real people might be significantly lower, their engagement rate might be incredibly low. So, learning how (to do) influencer work... (has) been a main focus (recently). It's something that I think is pretty important.

Message Pull-Through or Resonance

Rather than just look at media placements, one professional spoke at length about his agency's work to help understand how earned media messages are resonating with their publics—basically, what impacts were discoverable beyond simple conversation or tabulation of media placements. This professional argued:

With the amount of noise content data out there and with a lot of the sameness that's happening (and I'm speaking specifically to B2B enterprise techs that I work with) there needs to be something that helps a brand stand out and that's where the traditional comms work of narrative development comes in. So how do you create something that's compelling, that people are going to remember that they're going to be drawn to? And so, it's if you can include that in a metrics analytics standpoint, of message pull-through. Where is it resonating? What's resonating? And if it is—is it resonating with your key audience? I think the larger kind of context in terms of ... really looking at integrated campaigns and understanding how you can take the results from earned media, repurpose those into other types of channels in terms of owned content, in terms of your owned media and paid media—to then be able to retrieve the level of measurability that kind of earned media lacks. Right. So, I think that more and more we're going to be looking at earned media as part of a more holistic view.

Storytelling with Data

Several respondents noted that rather than just reporting numbers, having a deep understanding of how to use that data to “tell the story” in a manner that both management and clients can understand is highly valued. Respondents were not just referring to visuals (such as Google Data Studio) but the ability to effectively communicate insights based on the data itself. As one explained, data storytelling is not synonymous with visual storytelling:

I think that it’s important to be able to tell a story with the data—like using data to support a point of view or argument or to disprove a point of view or argument. In terms of the graphics that you use, I generally feel like that’s definitely secondary. I mean it certainly helps.... But I think the most important thing is being able to tell the story with that data, because if you’re having a good presentation meeting with the client, they’re not looking in the slides anymore, they’re looking and talking to YOU.

Discussion

In summary, study findings supported several of the recently recommended outcomes for public relations analytics education made in recent years, specifically, training students on basic measurement, and analytic reporting and analysis (CPRE, 2018; Brunner, et al., 2018; Ewing, et al., 2018; Freberg & Kim, 2018; Kent et al., 2011; Krishna, et al., 2020; Stansberry, 2016). Results also support the need for increased focus on teaching critical thinking, possibly via activities interpreting and communicating analytic insights using “live” analytics data (Meng, et al., 2019), as well as the integration of analytics training into existing courses (Adams et. al, 2020; Adams, et. al, 2019). This may be accomplished by working with a class client or nonprofit partner who is willing to provide access to their analytics account, or by simply using demonstration databases made available for such training (such as the Google Analytics

Merchandise data).

Additionally, arguments for the continued focus on other core public relations skills (effective communication and writing) were also supported as these competencies are just as required in digital practice as they ever were (Anderson & Swenson, 2013; Brunner, et al., 2018; Daniels, 2018; Paskin, 2013). Continued evolution toward more holistic measures of public relations and digital communication using analytics was discussed by all 14 of the study respondents, and AVEs were used by two respondents as a specific measure that should not be taught (or used) in digital campaigns following Barcelona 2.0. These findings echo recent calls by researchers that the process of public relations evaluation is evolving and that digital professionals have abandoned this earned media measure (Schriner et al., 2017; Waddington, 2017).

Specifically drawing from and building on the 2018 study by Ewing et al., results from this study further validate the following proposed learning objectives for public relations and communication analytics courses:

- 1) to identify the importance of online data in strategic planning and validating ROI;
- 2) to use analytics tools and technologies to capture data, generate reports and glean insights;
- 3) to articulate definitions and measurements of social media engagement and website traffic;
- 4) to apply basic numerical and statistical concepts to evaluate, plan, and implement strategic digital tactics;
- 5) to apply concepts and theories in presenting findings and in creating visualizations to share with management/client and;
- 6) to become Google Analytics certified.¹

Other elements of the authors' recommended outcomes were supported by the results of this study, just not as strongly or consistently.

¹ Although study results were clear that analytic reporting and analysis were the desired skills and that certifications were not as important to respondents, several repeatedly noted that Google Analytics certifications were valuable as "knowledge transfer" and therefore, we consider this learning outcome strongly supported.

For example, although Hootsuite certification was certainly a desirable skill for most of the professionals interviewed, evidence of training in any other social media management platform (HubSpot, etc.) was also mentioned as just as favorable. However, when discussing management platforms at length, respondents repeatedly noted that Google Analytics training produced the most transferable knowledge and skills in their estimation.

These results reinforce the call for analytics and basic digital measurement training to be incorporated into the public relations curriculum (AMEC, 2015; CPRE, 2018; Kent et al., 2011) as well as basic social media research methodology (Stansberry, 2016); however, considering these results, special emphasis should be placed on critical/analytic thinking exercises using real data and not tool-specific knowledge. In addition, our results support recent calls for public relations students to gain knowledge in business and financial basics so that they can better understand how their efforts impact their organization's bottom line and support their work with other managerial functions (Ragas, 2019).

Limitations and Future Research

The current study was limited by the number of interview respondents. Although all 50 of the O'Dwyer's top agencies in the sample were solicited for participation, only 15 professionals had responded positively before the early March 2020 onset of the global COVID-19 pandemic and therefore only 14 interviews were completed before major disruptions occurred prohibiting further participation during the study's timeframe.

Future research on the topic of analytics training in communication and public relations courses might consider how critical thinking and data analysis are actually being taught and how these activities or lessons relate to Ewing et al.'s (2018) proposed learning outcomes. Considering that this study's findings also support the scholarly argument for use of real data in

such training (Kent et al., 2011; Stansberry, 2016), certifications obtained by watching videos and taking quizzes must not be the main pedagogical approach to meet course learning objectives that require analytic and critical thinking.

References

- Adams, M., Hill, D., Lee, N., & Stansberry, K. (2020, January 21). *Incorporating analytics into the PR classroom* [Virtual panel]. Association for Education in Journalism and Mass Communication.
- Adams, M., Lee, N., Low, L., & Stansberry, K. (2019, October 19). *Digital media analytics: Pedagogical approaches and opportunities for curriculum integration* [Panel presentation]. Public Relations Society of America (PRSA) 2019 Educators' Academy Super Saturday. San Diego, CA, United States.
- Anderson, B., & Swenson, R. D. (2013). What should we be teaching our students about digital PR? Collaborating with top industry bloggers and PR Twitter chat professionals. *Teaching Public Relations*, 87, 1-4. <https://aejmc.us/prd/wp-content/uploads/sites/23/2014/11/tpr87fa13.pdf>
- Association for the Measurement and Evaluation of Communications. (2010). *Barcelona declaration of measurement principles*. Retrieved July 6, 2020, from <https://amecorg.com/2012/06/barcelona-declaration-of-measurement-principles/>
- Association for the Measurement and Evaluation of Communications. (2015). *Barcelona principles 2.0*. Retrieved July 6, 2020, from <https://amecorg.com/barcelona-principles-2-0/>
- Association for the Measurement and Evaluation of Communications. (2016). *AMEC's integrated evaluation framework*. <https://amecorg.com/amecframework/>
- Bajalia, A. (2020). Where are we now? Public relations professionals

- discuss measurement and evaluation. *Public Relations Journal*, 13(2). https://prjournal.instituteforpr.org/wp-content/uploads/Bajalia-Final-Edited_SJ.pdf
- Bowen, S. A. (2013). Using classic social media cases to distill ethical guidelines for digital engagement. *Journal of Mass Media Ethics*, 28(2), 119-133. <https://doi.org/10.1080/08900523.2013.793523>
- Brunner, B. R., Zarkin, K., & Yates, B. L. (2018). What do employers want? What should faculty teach? A content analysis of entry-level employment ads in public relations. *Journal of Public Relations Education*, 4(2), 21-50. <https://aejmc.us/jpre/2018/08/17/what-do-employers-want-what-should-faculty-teach-a-content-analysis-of-entry-level-employment-ads-in-public-relations/>
- Chung, S., & Taneja, H. (2016). Reassessment of Audience in Public Relations Industry: How Social Media Reshape Public Relations Measurements. *Asia Pacific Public Relations Journal*, 17(1), 60-77.
- Commission on Public Relations Education (2018). *Fast forward: Foundations + future state. Educators + practitioners: The Commission on Public Relations Education 2017 report on undergraduate education*. <http://www.commissionpred.org/wp-content/uploads/2018/04/report6-full.pdf>
- Daniels, C. (2018, October 4). *PR is in a state of reinvention: Is it up to the challenge?* Retrieved July 7, 2020, from <https://www.prweek.com/article/1493257/pr-state-reinvention-challenge>
- DiStaso, M., & Bortree, D. (2014). Preface. In DiStaso, M., & Bortree, D. (Eds.), *Ethical practice of social media in public relations*, (xxv-xxxi). Routledge.
- Duhé, S. (2015). An overview of new media research in public relations journals from 1981 to 2014. *Public Relations Review*, 41(2), 153-169. <https://doi.org/10.1016/j.pubrev.2014.11.002>

- Ewing, M., Kim, C. M., Kinsky, E. S., Moore, S., & Freberg, K. (2018). Teaching Digital and social media analytics: Exploring best practices and future implications for public relations pedagogy. *Journal of Public Relations Education, 4*(2), 51-86. <https://aejmc.us/jpre/2018/08/17/teaching-digital-and-social-media-analytics-exploring-best-practices-and-future-implications-for-public-relations-pedagogy/>
- Freberg, K., & Kim, C. M. (2018). Social media education: Industry leader recommendations for curriculum and faculty competencies. *Journalism & Mass Communication Educator, 73*(4), 379-391. <https://doi.org/10.1177/1077695817725414>
- Kent, M. L. (2001). Teaching mediated public relations. *Public Relations Review, 27*(1), 59-71. [https://doi.org/10.1016/S0363-8111\(01\)00070-4](https://doi.org/10.1016/S0363-8111(01)00070-4)
- Kent, M. L., Carr, B. J., Husted, R. A., & Pop, R. A. (2011). Learning web analytics: A tool for strategic communication. *Public Relations Review, 37*(5), 536-543. <https://doi.org/10.1016/j.pubrev.2011.09.011>
- Kim, C. M., & Freberg, K. (2016). The state of social media curriculum: A proposed framework for social media pedagogy. *Journal of Public Relations Education, 2*(2), 68-82. <https://aejmc.us/jpre/2016/12/14/the-state-of-social-media-curriculum-exploring-professional-expectations-of-pedagogy-and-practices-to-equip-the-next-generation-of-professionals/>
- Kinsky, E. S., Freberg, K., Kim, C., Kushin, M., & Ward, W. (2016). Hootsuite University: Equipping academics and future PR professionals for social media success. *Journal of Public Relations Education, 2*(1), 1-18. <https://aejmc.us/jpre/2016/02/15/hootsuite-university-equipping-academics-and-future-pr-professionals-for-social-media-success/>

- Krishna, A., Wright, D. K., & Kotcher, R. L. (2020). Curriculum rebuilding in public relations: Understanding what early career, mid-career, and senior PR/communications professionals expect from PR graduates. *Journal of Public Relations Education*, 6(1), 33-57. <https://aejmc.us/jpre/2020/01/21/curriculum-rebuilding-in-public-relations-understanding-what-early-career-mid-career-and-senior-pr-communications-professionals-expect-from-pr-graduates/>
- Lindenmann, W. K. (2005). *Putting PR measurement and evaluation into historical perspective*. Institute for Public Relations. https://instituteforpr.org/wp-content/uploads/PR_History2005.pdf
- Macnamara, J. R. (2014a). The 'toe bone to the head bone' logic model to connect public relations and corporate communication to organisation outcomes. *PRism*, 11(1). <https://www.prismjournal.org/uploads/1/2/5/6/125661607/v11-no1-a3.pdf>
- Macnamara, J. (2014b). Emerging international standards for measurement and evaluation of public relations: A critical analysis. *Public Relations Inquiry*, 3(1), 7-29. <https://doi.org/10.1177/2046147X14521199>
- Macnamara, J. (2018). A review of new evaluation models for strategic communication: Progress and gaps. *International Journal of Strategic Communication*, 12(2), 180-195. <https://doi.org/10.1080/1553118X.2018.1428978>
- Macnamara, J., & Gregory, A. (2018). Expanding evaluation to progress strategic communication: Beyond message tracking to open listening. *International Journal of Strategic Communication*, 12(4), 469-486. <https://doi.org/10.1080/1553118X.2018.1450255>
- Marklein, T., & Paine, K. (2012, June 13-15). *The march to standards* [Conference presentation]. 4th European Summit on Measurement, Dublin, Ireland. <http://amecinternationalsummitdublin.org/downloads/The-March-to-Social-Standards-Tim-Marklein-and->

Katie-Paine.pdf

- Meng, J., Jin, Y., Lee, Y. I., & Kim, S. (2019). Can Google Analytics certification cultivate PR students' competency in digital analytics? A longitudinal pedagogical research. *Journalism & Mass Communication Educator*, 74(4), 388-406. <https://doi.org/10.1177/1077695818816916>
- Michaelson, D., & Stacks, D. W. (2011). Standardization in public relations measurement and evaluation. *Public Relations Journal*, 5(2), 1-22.
- Neill, M. S., & Schauster, E. (2015). Gaps in advertising and public relations education: Perspectives of agency leaders. *Journal of Advertising Education*, 19(2), 5-17. <https://doi.org/10.1177/109804821501900203>
- O'Dwyer's Public Relations (2019). *Top PR Firm Rankings: Public Relations Agency*. (2019). Retrieved August 29, 2019, from https://www.odwyerpr.com/pr_firm_rankings/2019/independents.htm
- Paskin, D. (2013). Attitudes and perceptions of public relations professionals towards graduating students' skills. *Public Relations Review*, 39(3), 251-253. <https://doi.org/10.1016/j.pubrev.2013.01.003>
- Ragas, M. (2019). Defining 'Business Acumen': A Delphi Study of Corporate Communications Leaders. *Public Relations Journal*, 13(1). <https://prjournal.instituteforpr.org/wp-content/uploads/Business-Acumen-Ragas.pdf>
- Rockland, D. (2015). *Introducing Barcelona Principles 2.0-Why change was necessary*. Institute for PR..<https://www.instituteforpr.org/wp-content/uploads/Introducing-Barcelona-Principles-2.0-Why-the-Change-was-Necessary.pdf>
- Sanchis, J. (2018, December 06). *How to communicate effectively about PR measurement*. International Association of

- Business Communicators. Retrieved from <http://boston.iabc.com/2018/12/06/how-to-communicate-effectively-about-pr-measurement/>
- Schriner, M., Swenson, R., & Gilkerson, N. (2017). Outputs or outcomes? Assessing public relations evaluation practices in award-winning PR campaigns. *Public Relations Journal*, 11(1).
- Shen, H., & Toth, E. (2013). Public relations master's education deliverables: How practitioners and educators view strategic practice curriculum. *Public Relations Review*, 39(5), 618–620. <https://doi.org/10.1016/j.pubrev.2013.04.004>
- Smith, J. A. (1995). Semi-structured interviewing and qualitative analysis. In J. A. Smith, R. Harre' & L. V. Langenhove (Eds.), *Rethinking methods in psychology* (pp. 9–26). Sage.
- Stansberry, K. (2016). Taming the social media data deluge: Using social media research methods in the public relations classroom. In H. S. Noor Al-Deen (Ed.), *Social media in the classroom* (pp. 75-92). Peter Lang.
- Stansberry, K., & Strauss, J. (2015). Commentary: Standing out in a neon crowd: Exploring how to establish brand personalities on Twitter that help cultivate relationships with 'fans' and brand advocates. *PRism* 12(1), 1-6. <https://www.prismjournal.org/uploads/1/2/5/6/125661607/v12-no1-c1.pdf>
- Tam, L., & Kim, J. N. (2019). Social media analytics: How they support company public relations. *Journal of Business Strategy*, 40(1), 28-34. <https://doi.org/10.1108/JBS-06-2017-0078>
- USC Annenberg Center for Public Relations. (2017). *Global communications report 2017*. https://annenberg.usc.edu/sites/default/files/KOS_2017_GCP_April6.pdf
- Waddington, S. (2017, June 28). *New metric, same old flaws: AVE mutated into EMV*. Wadds Inc. <https://wadds.co.uk/blog/2017/06/28/ave->

mutates-emv

- Watson, T. (2012). The evolution of public relations measurement and evaluation. *Public Relations Review*, 38(3), 390-398. <https://doi.org/10.1016/j.pubrev.2011.12.018>
- Wiesenberg, M., Zerfass, A., & Moreno, A. (2017). Big data and automation in strategic communication. *International Journal of Strategic Communication*, 11(2), 95-114. <https://doi.org/10.1080/1553118X.2017.1285770>
- Wright, D., & Hinson, M. (2017). Tracking how social and other digital media are being used in public relations practice: A twelve-year study. *Public Relations Journal*, 11(1), 1-30. <https://prjournal.instituteforpr.org/wp-content/uploads/PRJ-2017-Wright-Hinson-2-1.pdf>
- Zhang, A., & Freberg, K. (2018). Developing a blueprint for social media pedagogy: Trials, tribulations, and best practices. *Journal of Public Relations Education*, 4(1), 1-24. <https://aejmc.us/jpre/2018/05/21/developing-a-blueprint-for-social-media-pedagogy-trials-tribulations-and-best-practices/>

Appendix

INTERVIEW PROTOCOL – Analytics Education in PR

1. Can you tell me (in general) about the analytics skills and training you look for new hires to have who come to you from college public relations or strategic communications programs?
2. (Category-Measuring results) Building from that, what types of metrics do you think are most important for new PR professionals to understand? (Feel free to use any terms specific to reporting or tools.)
3. (Category-Measuring results) Do you think it is important to differentiate between volume metrics (# of retweets) and engagement metrics (sharing, commenting)?
4. (Category-Understanding context/critical thinking) How important is it for new hires to understand the context of analytic data and critical thinking? For example – is this something you expect them to learn “on the job” through experience or do you expect them to be able to interpret analytic data from the beginning?
5. (Category-Using tools and listening) What social media monitoring and analytic tools do you believe are most important to learn? (I’ll list some for you, on a scale from 1 to 5 with 5 being absolutely essential, give me a number of how important you feel that tool is for students to learn.)
 - a. Google Analytics _____
 - b. Google Adwords _____
 - c. Hootsuite _____
 - d. Facebook analytics _____
 - e. Twitter analytics _____
 - f. Instagram analytics _____
 - g. Crimson Hexagon _____
 - h. Meltwater _____
 - i. Other (interviewer to note) _____

6. (Category-Storytelling) How important is it for new PR hires to be experienced in storytelling skills (ie. Visualize data in meaningful ways or using data in digital storytelling/writing)?
7. (Category-Emergent Skills) Are there any other analytics or digital reporting skills or certifications that you SPECIFICALLY look for in new hires? Please describe if so.
8. (Category-Outcomes) Considering your most recent hires that graduated from a public relations or strategic communication program, were there any skills or training lacking from their experience? If so, can you describe?
9. (Category-Emergent Skills) Finally, are there any other skills or knowledge related to analytics that you feel are becoming necessary in professional practice?