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Entry-Level Employees' Views of the Skills Gap in Digital Marketing

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Table of Contents

ENTRY-LEVEL EMPLOYEES' VIEWS OF THE SKILLS GAP IN DIGITAL MARKETING

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Abstract

This study examines which competencies are most necessary for entry-level employees in digital marketing from the perspective of employees with 0-3 years of experience. Qualitative methods were used to conduct in-depth interviews with 12 recent graduates with 0 to 3 years of industry experience in digital marketing. Transcriptions of audio recordings were organized into individual data units. These were thematically analyzed with a grounded theory framework resulting in six main themes about the most valued competencies, as well as six subthemes. Findings suggest that in the field of digital marketing, verbal and non-verbal communication skills such as interpersonal communication, public speaking, and writing are often more valuable for new graduates than even technical or data analytical skills.

Keywords: Digital Marketing, Skills Gap, Traditional vs Digital Marketing, Digital Marketing Competencies, Technical Skills, Non-technical Skills, Data Analytics, Soft-Skills

Entry-Level Employees' Views of the Skills Gap in Digital Marketing

The vast adoption of digital marketing techniques, including the boom of using social media for multiple stages of business operations, have significantly contributed to promoting products that cater to the specific needs of each individual customer (Brady, Fellenz, & Brookes, 2008). In this digital era the chain of communication from the marketer to the customer has become very challenging across many industries. Marketer/Employers are on a constant lookout for candidates who can communicate the right message to the right audience using digital marketing skills.

"Accountability for developing transferable skills in business education has received growing attention in recent years as business schools worldwide face increasing competition, student demands, and scrutiny from local, national, and international governing and accrediting bodies" (Melton, 1997). In the present days, obtaining a University degree for acquiring digital marketing skills involves "analytical skills and written and communication skills, for example, gaining an up-to-date, theoretical, and practical knowledge of the domain of marketing" (Dacko, 2001).

It puts an immense pressure on marketing employers to hire the right candidate with the most desirable skill-set to cater to the digital marketing needs. This research would reveal some of the key digital marketing skills required for entry-level employees to sustain the market demand. By conducting in-depth interviews of entry-level employees in the field of digital marketing, this study will identify the gap between the employer's needs and the entry-level employees' competencies immediately following their undergraduate/graduate education.

Literature Review

Defining Digital Marketing

Being a fairly new concept, Boone and Kurtz (2011) describe digital marketing as a strategic process of promoting goods and services to a targeted market on the internet by encompassing the key marketing concepts through digital resources which may include tools such as e-mail, search engines, social media, and so forth. While Ryan (2014) agrees that using digital technology enables people to build relationships that may trigger the development of products and services, other authors like Wymbs (2011), and Royle and Laing (2013) assert that the use of digital technology is "to generate an integrated, direct and measurable communication to acquire and keep customers" (Gutierrez-Leefmans, Nava-Rogel, & Trujillo-Leon, 2016, p. 209).

Trainor, Rapp, Beitelspacher, and Schillewaert (2011) define digital marketing as "the integration of complementary technology, business and human resources that, when combined, positively influence firm performance" (p. 162). The Digital Marketing Institute (DMI) refers to digital marketing as "The use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them" (Smith, 2007, in Wymbs, 2011, p. 94).

Simply Digital Marketing (2012) in Royle and Laing (2013) define the term as, "Digital Marketing is a sub branch of traditional Marketing and uses modern digital channels for the placement of products e.g. downloadable music, and primarily for communicating with stakeholders e.g. customers and investors about brand, products and business progress" (p. 62). Based on the definitions, it can be understood that there is an emphasis on strategic

communication, be it focusing on maintaining customer relationships or integrating communication from different platforms.

Many scholars have agreed that digital marketing has a positive effect on an organization's performance and competitive advantage. From the definitions above, it can be understood that digital marketing is using digital technology to implement an organization's strategic plans and establish long-term customer relationships. It can be implemented through digital tools such as e-mail marketing, marketing automation, social media marketing, and search engine optimization that will help companies to give measurable outputs.

Digital marketing is a rapidly evolving industry that strives to incorporate newer technologies and practices, even if they are not very popular in all the countries across the world (Omar, Ramayah, Lin, Mohamad, & Marimuthu, 2011). Even if the prevalence is limited to places/companies that have the access to innovative strategy with new technologies, the trend is definitely shifting to companies to incorporate some of the digital methods to achieve results.

Digital Marketing and the Skills Gap

The academic world is yet to explore in-depth the required skills to compete in the digital marketing world. Michaelidou, Siamagka, and Christodoulides (2011) note that there is a dearth of research in examining the skills gap in digital marketing. Their research focused on use of social networking sites (SNS) by business-to-business (B2B) firms. However, Day (2011) points out that we need expert industry knowledge with respect to digital marketing skills and what would happen if these skills are not met.

Though there is not enough data to support the argument of skills gap in digital marketing, there is a lot of market data that gives an idea of what the skills gaps are from the past studies. An article in CMO Council (2016) stated that Capgemini, a multinational management

consulting firm, "reports that 77 percent of more than 800 executives surveyed believe the lack

of digital skills is the primary obstacle to their ability to digitally transform and evolve in the

connected economy." Adding to that the report also mentions that companies spend 20% or less

from their annual budgeting for training professionals in using digital skills.

Contrary to the skills gap, it is interesting to note that according to RKMA market

research reports, 44% of B2B companies attribute their revenue to data-driven marketing (Miller

& Washington, 2016). The report also suggests that marketing automation, which is a part of the

digital marketing channel, has the highest degree of effectiveness. This shows that while the

companies are talking about the huge skills gap, there is also a notable increase in the numbers in

terms of revenue attribution towards digital marketing.

Challenges in Digital Marketing – Market Insights

Day (2011) describes a model that determines the capabilities gap in marketing that

begins within the firm and looks outside for a vantage point rather than starting from the market.

He explains the capabilities gap by proposing a theory called the dynamic capabilities theory

where he suggests that, "for marketers of all stripes, there is the pressing necessity to respond to

the accelerating complexity of their markets which stresses their organizations and potentially

places them at a competitive disadvantage" (p. 195). Though there are many market

fragmentations, online usage and targeted messaging have become the primary source for

widening the gap.

In a survey conducted by IBM where 20 CMOs were interviewed, it was found that four

of the biggest challenges are explosion of data (sometimes also called big data), social media,

proliferation of channels, and shifting consumer demographics. These have become the

important areas to focus on amid the digital marketing development. For instance, research

findings suggest that more than 90% of the consumers read online reviews of a product before actually buying them, which is in turn a pressure on the marketers to provide user-generated content (Leeflang, Verhoef, Dahlström, & Freundt, 2014).

Further to Leeflang, Verhoef, Dahlström, and Freundt's (2014) study, they identified that the biggest opportunities to improve the digital marketing challenges are

- ➢ to fill the talent gap by having skilled/trained professionals,
- ➢ to redesign organizations to have clearer vision for digital business, and
- ➢ to have an actionable digital metrics.

In another study, McAfee and Brynjolfsson (2012) highlight some of the challenges with association to big data. They give an overview of how big data affects change in management. They identified that "failure of leadership; lack of appropriate talent management; failure to adopt new technology; poor decision making and a company culture which is not entirely open to a data-driven approach" are a few of the biggest barriers in change management (Royle & Laing, 2014, p. 66). This seems to be in-line with the results showcased by Royle and Laing (2014), which draw attention towards a lack of technical skills, leading to a lack of overall digital strategy.

While analyzing some of the market research conducted by Smart Sights (2015), it is found that contrary to what we perceive as social media boom, the biggest skill that 47% of marketers thought they needed to improve was "social media marketing" (see Figure 1A). In another survey conducted by the Smart Sights, it is found that "only 21% of marketers rated themselves skilled in mobile marketing, and only 13% skilled at affiliate marketing (see Figure 2A). These skills have grown rapidly in importance over the past several years, thanks to the proliferation of smartphones and tablets on one hand and blog/vlogging on the other."

From the research conducted by the Digital Marketing Institute (2016) with the data sought from USA, UK, and Ireland, it is found that traditional marketers are going through a great struggle in upskill and marketing graduates are not taught the required skills that include digital techniques. It is also identified that employees who are not just the new entrants but also senior workers need a good base in training for digital skills "to ensure that knowledge capital permeates the entire organization and progressive" (Dodson, 2016, p. 19).

From the rapidly growing digital era where anyone and everyone can use digital marketing skills such as blogging, social media marketing, content marketing, and so on, it is surprising that there is a huge gap between what the role of a digital marketer demands and what students are able to transfer from their course work towards digital marketing.

While it is important to understand the core business challenges in the world of digital marketing, it is also important to take a closer look at the academic standing of digital marketing in college education.

Digital Marketing in the Academic World

Wymbs (2011) has analyzed the need for digital marketing in the academic world by performing a curriculum audit and detailed a new curriculum in line with digital marketing. In his research, he has asserted the need for digital marketing in academic areas under three conjectures:

➢ The traditional marketing does not provide students to analyze customer needs and customer insights.

➢ Digital media is proven to be real and not a fad.

➢ Marketing as a discipline is given less importance in business organizations.

"I think the approach is appropriate and suitable for other universities; however, I realize that many may choose an evolutionary path toward digital marketing, so I outlined a phased implementation approach to the Digital Marketing major" (Wymbs, 2011, p. 102). His paper gave curriculum recommendations for colleges to follow and implement online/digital marketing courses with measurable results.

On the other hand, marketing companies, such as Merkle, have started creating programs for junior or senior year graduates who are interested in a marketing career to enhance their educational skills before graduating. Very selected students are taken for the course from numerous applications. "The lessons, together with team-building exercises, leadership workshops and group projects, will help students gain hands-on knowledge of the current and emerging trends in direct and interactive marketing" (*Marketing Weekly News*, 2011).

The academic standing of digital marketing skills from Wymbs's research concluded that though university curriculum supports digital marketing through its course structure there is a need for an "evolutionary" path. College education does support marketing courses by adding many digital marketing based subjects, however these subjects do not seem to be very effective in the work set-up.

Addressing the Digital Marketing Requirements in the Industry

Akar and Topcu (2011), and Brady, Fellenz, and Brookes (2008) concluded that social media marketing needs more academic enquiry for addressing the needs of a company. Reibstein and Day (2009) point out that some of the best work has emerged in the industry when scholars and managers come together, creating a synergy between academic learning and industry requirements. There have been constant calls from the marketers to increase relevance for challenges in the industry to address skills shortages (Brady et al., 2008).

On the other hand, Brynjolfsson and Schrage (2009) call for attention towards growing technology and improvised marketing techniques. For instance, if marketers find a new technique in Facebook to leverage better traffic, they implement it by testing it real time rather than choosing the same old traditional technique learned in a college education. This growing technology impacts the curriculum to implement in the courses, in turn building the skills gap.

Much research identifies that there is a basic lack in skills training in the field of digital marketing. This gives rise to an important question in this research, whether to address the actual requirements sought by the companies, or rather to identify the industry needs.

Skills in Digital Marketing

Royle and Laing (2014) concluded that one of the digital marketing tools adopted more widely was the use of social media marketing. While there were many digital marketing techniques that were analyzed, such as e-mail marketing, website, search engine optimization (SEO), mobile marketing, and so forth, they have also created the digital marketer model that identifies various skills from the business needs to technical needs (see Figure 3A).

The digital marketing model includes key skills from project management, writing, blog posting, and digital networking to SEO, video editing, website development, and so on (Royle & Laing, 2014; see Figure 3A). The results of their analysis from the digital marketing model underline two important requirements: (a) client management skills and (b) corporate communication skills. It is important to note that Royle and Laing (2014) interviewed 20 communication professionals who used digital marketing as a part of their job. Amidst this number, a common theme that evolved was the lack of digital marketing skills. Non-entry-level communication professionals, who may be experienced in their field, may also have a difficult time adopting newer forms of communication channels.

In market research conducted by Miller and Washington (2016), the top ten most effective channels of digital marketing strategy include marketing automation, lead nurturing and scoring, location-based mobile tracking, content marketing, data targeting and segmentation, mobile push notifications, offer management, web personalization, e-mail marketing, and landing pages. This gives a broad understanding for this research to analyze some of the most important skills required by the entry-level employees.

Most of the research work done by scholars previously deals with the view of skills-gap from a marketer's or experienced professional's point of view and doesn't take into consideration the view of an entry-level employee. Though scholars have identified various skills that act as a barrier to perform the digital marketing activities, it is important to understand the gap from a recent graduate who will have a better view about what college education gives them. For this reason, the following research questions would focus on the perspective of entry-level employees or recent graduates who are in the field of digital marketing.

RQ1: What competencies are required for an entry-level digital marketer to be successful but you felt that you were lacking?

RQ 2: What do entry-level employees recommend for higher education and digital marketing?

Methodology

Data was collected for this qualitative study by interviewing entry-level professionals with 0-3 years of experience in the field of digital marketing. Interviews provide real evidence of a new concept that is put under investigation, through with contexts and situations emerges (Miller & Glassner, 2011). This research used a grounded theory approach to collect data through in-depth interviews and thematically studying the data. Only graduates with

communication or marketing degrees were selected for interviews. Interview participants had a

range of experience from internships to entry-level professionals with no more than three years

in the industry. Their titles varied from product analysts and program managers to project

managers and marketing interns (see Appendix B). Participants were chosen based on purposeful

sampling, a method used in research studies to identify and collect information-rich cases despite

limited resources (Patton, 2002). In this study, participants were selected if they identified

themselves as working in the field of digital marketing.

Questions examined entry-level employees' current work experience and educational

experience since their time at college was recent. In-depth interviews were conducted with 12

marketing professionals that lasted between 20 – 45 minutes and the interviews were audio

recorded.

Participants were asked about their current job description, the competencies learned in

higher education, expectations from the industry, important skills to succeed in the chosen career

path, and recommendations to improve the educational structure catering to their relevant

courses.

The audio recordings were transcribed to text and a pattern of themes were identified

after repeatedly revisiting the text. This concept was borrowed from Kvale and Brinkmann

(2009) called "bricolage." In this approach, an interview is heard multiple times to draw

meanings focusing on key points of interest, and coming up with themes organizing and

connecting them. The key takeaways of the interview are how the participants described their

career path from students to working professionals, and what skills were expected by the

employers. Some of the key themes included "self-regulated learning," "communication skills,"

"technical skills," and "most useful courses and practices in education." The quotes of key

points were coded under six themes and six sub-themes answering each of the research

questions. Every theme was supported by at least five quotes in the data set. It was further

verified by an inter-coder reliability test using Scott's expected percentage agreement technique

(Scotts, 1955) with a score above 80% reliability.

Results

The results of the qualitative theme analysis fell under six themes and six sub-themes

about the current skills required in the digital marketing profession and the skills taught in the

college education. These themes answered the two RQs.

RQ 1: What competencies are required for an entry-level digital marketer to be successful but

you felt that you were lacking?

Communication Skills

One of the most important elements spoken during the interview by all the professionals

is the importance given to communication skills. Interestingly, 75% of the sample size

emphasized having soft-skills over technical or data interpretation skills.

Verbal communication skills. This sub-theme was coded based on repetitive emphasis

on skills such as interpersonal communication, organizational communication, content writing,

and public speaking. The data showcased higher mention of the previous skills through varied

expressions such as:

(a) At workforce, they are not all marketers, you should be able to communicate to

people with diverse interest like a designer or an engineer.

(b) For this job in particular, I would say communication is very important. Being able to

communicate with designers and engineers and not only at that level of communication but also knowing the difference between talking to a director and a teammate who I can be more detail oriented.

(c) Considering a communication class or a marketing course is very important as it gives you a sense of content management which is the most important part of marketing. For instance, I see a lot of flyers around the campus without any information of what, who, why and how. If you understand all of this with some content courses it gives a better perspective.

(d) Being able to communicate with different kinds of people whether they are in a different role or in different locations. I worked with different people from offshore who are different from people in Boston. Being able to manage up and manage down was very important for me. I had to be able manage people that I oversee as they are building something for me because overall I am responsible for a project. But I also need to know how to manage a client and the client services team to get realistic results.

(e) I didn't take public speaking at RIT, it wasn't required of me and it wasn't even an elective. But I presented a lot in college and I continued to present now in the field of my work but I think that is something hands down a huge benefit and great experience. But it didn't come directly from any of the courses. At RIT, I used to do presentations in front of 30 people but there was never a real push where you need to explain yourself very intelligently in a succinct manner over a certain chunk of time with engaging visuals or language that makes sense.

Other soft-skills. This sub category mainly focused on quotes that included a deep explanation for design thinking, creativity, and setting the right priorities for work. In the sample

50% agreed that technical skills are skills that can be gained over a period and by spending more time on newer technologies. But to them it was important to have the right personality and soft-skills to grow in the chosen field. Some of the examples under this theme are:

(a) I feel you can learn the technical skills. Soft-Skills are the ones you take time to master and it changes job to job. And technology is always changing and you can always learn something new.

(b) One of the most important things my mentor at work taught me was to spend more time on a project. She told me told to look at something spend more time on it and understand it better. I was always the one to finish quickly and get more done because they were paying me to do my job. But that was not the right thing to do. I had to deliver the perfect work while using ample amount of time so they had less critique for me. I learnt to slow down.

(c) You need to have design thinking. Understanding of how consumers would interact with the product and using relevant tools to execute that are few of the important issues to address.

(d) You need to be very creative especially when you are dealing with content. Because you are very quick on dismissing a content if it is not engaging. So this is critical.

Technical Skills

Most of the market data in the literature review emphasized knowing the right technology and having widespread knowledge about the various tools available in the market. While technical skills have always played an important part of the digital marketing entity, 45% of the sample mentioned the increasing need for data analytics skills. In the data driven world where companies are driving marketers to rely more on data analysis, the sample who agreed to

investing more time in data analytics are more than the ones who agreed to have specific

technical skills that include knowing various digital tools or technology. Quoting a few examples

below:

(a) Basic skills needed are the technical ones, this is a must. You need to be detail

oriented and have the ability to analyze because anyone can start using the digital

marketing tools. For example, SEO is totally based on your skills. The better skills of

understanding and analyzing what key words are the best match for your business, the

better you can rank. But SEM is paid which doesn't need a specific skill set. You just

need basic skills to bid.

(b) Using a lot of data analytics softwares like Python or may be R-programming and

understanding both together can be really helpful. These could be added skills.

(c) I think I definitely want learn more about Website development. It is available at RIT

but I think it is lacking in the marketing department. On top of that doing marketing data

analytics. I know some data analytics but not specific to marketing and how a market

research can turn into a campaign.

(d) Analytics is one but the reason behind why you are doing what you are is more

important. Since I wasn't exactly in the media and marketing program specifically, I did

take Raj Murthy's Google Analytics, SEO and Google AdWords course. That was

because I was using analytics in my internship and co-ops frequently. So, I knew I need

that knowledge. Linda Brendan's (name changed) journalism course work touched on

Google Analytics but didn't go in depth. I really think that the journalism program

overall would benefit from an analytics specific course just because it's important to

know even if you are not in news organization's analytics or in a marketing firm's

analytics. It is important to know how a post that you did or a piece that you wrote did in the online space and understand how people are interacting with it.

(e) A statistical background where being able to process all the information is something I have been constantly working to strengthen through my master's program. But undergrad didn't have a very strong statistical program or even approach to be able to process all the data and to make it useful. We did learn frameworks and techniques to be able to build market research and stuff. To process all the data and provide results to the clients has a lot to do with my self-learning skills and college education lacked that.

(f) Data Analytics is definitely crucial because it has a mix of different tools. For instance, the use of Minitab is important to process information. Just being able to understand what you can do with the data and what you can't do as well as differentiate information from customers and process is crucial. Management of information systems with this information is also applicable here.

Self-Regulated Learning

As defined by Shunk and Zimmerman (1994), self-regulated learning is "the process whereby students activate and sustain cognitions, behaviors, and affects, which are systematically oriented toward attainment of their goals" (p. 309). The sample individuals relied on their self-cognition and understanding of the subject matter rather than the college education. This theme evolved when the fresh graduates deeply focused on constantly keeping themselves updated with technologies available and being aware of new capabilities within the digital marketing spectrum. The void of skills such as data analysis, public speaking, and written communication are filled by self-regulated learning. Some quotes are as follows:

(a) I was in Sorority at RIT and I had to use excel sheets to track everything we did. But

other than that, the tools we use here are self-explanatory and we teach ourselves. They are normally things that are not taught anyway. I use a website called Lynda.com a lot. They have a lot of training for software.

(b) It is very important to keep up to date with the new digital marketing tools. A lot of the things that I had to do for market research is to be able to provide recommendations to customers in terms of how to approach the central problem. Before I give recommendations, I will always research and see what was available. Because what is available today may not be the best solution for tomorrow. So, it is important to keep up to date with that.

(c) As a user experience designer I have taught myself all the graphic design skills. If you know how to design you can learn all the different things. But image manipulation is one of the key things that I needed to learn all by myself.

Understanding the Digital World

This theme was developed due to the high response rate by the professionals, insisting on knowing and understanding the internet better, to further understand skills-related to digital media. These recent graduates felt that digital marketing is a fairly new concept and what they were taught in college education did not completely focus on what is expected in the real world. The respondents felt that marketing these days is a very different concept when it comes to digital media. Learning and understanding the medium to apply marketing concepts was more challenging for them. Most of the quotes included how the basic nature of online is misunderstood by many and how it is important to communicate in the digital era. Examples of this theme are:

(a) In the company I was working for, the marketing team itself didn't really know how to use the

digital platform or how they could improvise on it or how they could increase the

engagement using this platform. Basically, they didn't know how they could actually sell

what they want very conveniently and identify the right people to sell it to.

(b) I think it is more important than ever to gather data points of engagement to better understand

how you would want to communicate with your audience. Nowadays it's not just about

sending an email; you need to know who you are sending it to and the likely hood of

them opening it.

(c) I would like see more computer science classes just because I think whether you are

manipulating big data or you are just working with a team of in house computer science

people, understanding or at least having the basic knowledge of how websites work is

important. I still write for print. The piece that recently got published I wrote one for print

media and one for digital/online. Understanding how you are piece is going to be online

or on internet or just how internet works when it comes to digital content and websites

generally is I think really really important. They are also some things I wished I had spent

more time on while in college.

(d) Having some very focused courses on digital marketing and global analytics would be very

beneficial. Traditional and fundamental information is not enough when you go out in the

real world. With a marketing course in my undergrad I lacked an in-depth understanding

of digital marketing. I think it is essential to understand how the internet space works

more than anything.

Lack of Strategic Digital Marketing Integration

This theme identified the actual gap that the entry-level employees experienced by

mentioning some specific issues they were dealing with in their work. The theme evolved based

on how the respondents felt incompetent due to lack of strategic integration of digital solutions within the firm they worked for. Even if the fresh graduates were prepared to face the real work, on the job, they still felt their co-workers were behind for keeping up with the digital technologies. Some of the responses are:

(a) With respect to my co-workers, I definitely knew a lot more in terms of digital marketing than they knew. My manager was well versed with respect to the business aspect. But I could go in and tell them for instance how to improve their website or Search Engine Optimization. They weren't aware of their own capabilities in the digital space.

(b) When I started working actually I didn't feel unprepared at all. The profile that I had Exactly matched the previous project I worked on for the college. So, it was easy for me and I knew a certain set of tools already. Google analytics was the most important software which I had used for the project at school.

(c) Say someone who is around 30-40 years old working as one of the Marketing Managers in the company, they don't know much about digital marketing. Google analytics is something and they have started using that now but they don't know the structure in depth. Certifications or courses outside could be really helpful.

(d) I think the companies could have a lot of training programs in terms of using is specific to the softwares and tools related to web analytics.

In today's world, skills that play an important role to be successful in the field of digital marketing from the eyes of the entry-level employees are soft-skills. They tend to acknowledge verbal communication skills and other soft-skills over technical or data analytical skills. These entry-level graduates also emphasized self-regulated learning which involves staying current in a

particular content knowledge for upward mobility in their careers. They discussed two main challenges with their careers:

1. They believed their college education did not translate well to their job due to the very nature of digital marketing, and that it is still treated as supplementary to "traditional marketing."

2. The workforce is still trying to cope with new technologies even if they, the recent graduates, were prepared with the necessary skills.

RQ 2: What do entry-level employees recommend for higher education and digital marketing?

Seeking an in-depth understanding of what training was given to recent college graduates, the theme "*Addressing a skills gap with educational training"* emerged. The respondents discussed how education is valued and is looked at from the perspective of what the job market is seeking.

Addressing Skills Gap With Educational Training

While 90% of the employees agreed that college education was not enough to prepare them to face the real world, they also gave an overview of what is required from college for them to be competitive in the entry-level market. Some of the quotes included:

(a) There is an MIS the class that we have to take where we develop Business Application and we learn C- Sharp very briefly. Talking to some of my Software Engineering friends they told me that they use super old softwares like Microsoft studio.

(b) At RIT the software that I mostly learnt that helped was Google Analytics and Google AdWords in a class where Raj Murthy taught, it's called SEO and Analytics. That's by far the most useful class at RIT that I have taken.

(c) RIT focuses a lot on Google analytics and it is probably because it is free of cost.

However, being a university at this stage they can actually pay up for other softwares like Adobe/Microsoft to learn other platforms of digital marketing.

(d) RIT's program is very high level and it doesn't necessarily give you the practical tools that you need to be in advertising. In advertising if you are not a creative you are either in client servicing or in project management. It is not like I would take a class on copy writing or on designing because those jobs are going to go to people who study for that.

(e) I don't think the school of communication would have needed to use many softwares that we are using here anyway. They wouldn't use Jira, or Confluence. Those are the things you would probably have to use or learn on the job to migrate around in your projects.

Most of the responses were how RIT's software was outdated and the technology used needed to be revised to address the current market demand. There were some respondents who also agreed that the technology is changing too fast and it is probably impossible to implement everything on the go in the college educational system. But it seemed important for educational institutes for being aware and moving towards a unanimous direction.

Royle and Laing's (2014) digital marketer model revealed that there is a huge gap in the integrated strategic approach towards digital marketing. The technology is evolving and the digital marketing skills gap seems to be ongoing. They summarize that there is a lack of guidance on best practices that results in the adoption of the "test and learn" method to digital marketing. This study echoed a similar sentiment from the entry-level digital marketers. While past research data identified that technical skills were one of the most viewed problems in digital marketing (Crush, 2011; NMA Newsdesk, 2007; Wood, 2011), the entry-level professionals in this study had varying views on the specific required skills. Focusing on the anticipated future of

digital marketing, this study identified that there were a lot of debatable ideas to foreseeing future. While some wanted college education to focus on learning tools or skills required by the companies they are going to work for, there were some who wished they had focused on having broader communication skills ranging from public speaking, writing, interpersonal communication, and non-technical soft skills.

When the respondents were asked for a better way to address the issue of skills gap in higher education, their answers fell under two important themes: 1) the need for rework in the course structure, and 2) the need for practical training. Some professionals felt that having a co-op or an internship experience paved a definitive path for understanding how digital marketing works in the real world. There were some who felt the courses taught can be made so much better suiting the real-world experience.

Need for rework in the course structure. This theme revealed some strong recommendations towards few specific coursework that can be taught in the school of communication and the business school to enhance their college education. More than 60 % of the respondents insisted on having a project management course as they felt they used project management skills for any assignment they were assigned to. Some of the quotes were:

(a) Internet marketing is a great class for the second year of college. But maybe including a bit of data analytics into that class instead of just saying "here is a very broad overview of what internet marketing looks like" would make the course work so much better. I think the college must add more classes. I know that they are trying to get more into the digital side as it is growing so fast. But having classes available to the students earlier (even if they needn't take it earlier), having it available for them to take it and having an

option of letting them decide whether they want to take or not would make a world of difference.

(b) One thing I wish the Advertising course or just the school of communication as a whole had was an option for a Project Management course. A lot of people who ended up going to the SOC are now project managers or track leads or are a program coordinator. I feel like that would have helped a lot. I have to learn everyday on how to use Microsoft Project and Visio for all my visuals to aid my Powerpoints.

(c) The only one thing I really think that the SOC could benefit from is teaching or even just including in some already existing courses would be Microsoft Project for just building out a plan. Every single course I took in RIT had a project to be submitted. Often it is a group project. Microsoft Project would have helped us so much for actually planning out everything that needs to be done and getting the tasks to each individual team member.

(d) I would definitely recommend a course on project management 101. There is a need for media planning course. I don't know if that course is still around. But when I took it it was still high level. You learn what media planning is but not like how you or I as an employee creates that media. Considering the important things, you need to know was lacking.

Need for practical training. While the above quotes insisted on a specific coursework that needs to be included in the course structure, this theme revealed the importance of having either an internship/co-op experience during the coursework or involving in a collaborated learning. Examples of these quotes were:

(a) Even if you take relevant courses you need have practical knowledge. In the

coursework you take you would learn all the terminologies but it is important to apply them practically.

(b) With digital marketing one can't learn theory papers. So, a lot of practical work must be included. The more you work with companies or doing internships even on campus the more you are prepared for the real-world experience. For instance, a platform like Google Analytics or any analytics can be implemented even on campus. You just need to use them practically and learn them.

(c) Being able to talk to people across whatever discipline they are in is very important. Andy James (name changed) had some good courses that I appreciate because they were cross disciplinary. So, it was like journalism students working with marketing students or working with computer science students. That was a quick introduction to "I am going to be working with people who think differently and look at the world differently than I do." When you have someone, who is super technical working with someone who is naturally creative sometimes not understanding why this and that are important gives a segue to understanding different types of situations.

(d) I feel that there is a need for classes that involve cross functional collaborations. Again, there are classes like entrepreneurship and I took commercialization. We got to work with the designers that were cool. We could have more such classes because that's what happens in the workforce.

The young professionals, working in the digital era, view education as a place to experiment with digital marketing skills to face the work environment. Unfortunately, there were more than 80% of the respondents who felt unprepared with their competencies to face the real-world challenges.

On the other end of the spectrum, studies suggest that corporates need to invest more time on training the marketers to understand core digital skills like using social media marketing, affiliate marketing, and other technical skills. But the recent graduates who are flamboyant with the above-mentioned skills face crisis in communication and other soft-skills.

One of the participants, Andreya Motealegre, who worked as a production design intern in a marketing agency pointed out an important concern that what her college education taught her was different from what was being required from the professional world. While she was in college she was asked to constantly work faster and deliver sooner than better. But when she contributed a design in the work space she was asked to "slow down." In the interview, she mentioned that she learned to slow down and work very precisely rather than complete everything and work fast. This is an example of how learning in the college level is different from what was expected in the workforce.

On the other hand, Chandana Nabiar, who worked as a web analytics intern, said that she felt very competent in the work environment while her immediate seniors, who had a large amount of experience in the field of marketing, were not aware of newer technologies or the application of the concept of digital marketing. This observation is similar to Dodson's (2016) findings where he called for attention towards training programs, not just for entry-level employees, but also for senior level employees to get acquainted with the growing technology.

Recommendations Based on Findings and Future Directions for Study

This research opens a wide horizon to take the digital marketing education to a new level. While there may always be some friction between goals of higher education and industry requirements across all the disciplines, there may be opportunities to the address the skills gap

entry-level employees are facing. Some important directions for future research include the following.

Acknowledging the Skills Gap in Digital Marketing

Firstly, the academic world needs to consider that there is a requirement to study the skills-gap in the field of digital marketing. While many newer courses are included in programs related to the digital world, there needs to more of a focus on identifying the skills required in the industry from the perspective of new entrants than senior level employees. The lack of scholarly articles on this topic is evidence that more research needs to be conducted in this field. Only when researchers acknowledge that there is a problem, can there be a way to identify solutions in the academic field.

"Test and Learn" Concept

Royle and Laing's (2014) digital marketer model evolved the concept of test and learn due to the lack of structured learning. This idea was also mentioned frequently by young professionals. There is a constant push to stay trained within new technology, while at the same time including rapidly changing technology in the college coursework is a challenge. While technology will continue advancing, a good option for learning seems to be the test and learn concept. Interview participants did suggest that college education should invest in newer technologies to encourage students to invest their time to learn. For example, the Saunders Business School at RIT recently invested in the Bloomberg's analytics lab for students to analyze and use real time market data. More such investments can give students an opportunity to learn.

Relating Communication Skills and Digital Marketing

One of the key themes that evolved from this research is the need for better communication skills. It is surprising to hear communication and marketing majors wishing they

had better communication skills to express their strategies convincingly. Understanding the need for better public speaking and/or interpersonal communication was very important. Why do communication majors feel incompetent about communication skills? How does their college education help or hinder them honing their communication skills? And what needs to be done to make them feel competent? These questions emerge from the research for further scrutiny.

Perspective of a Young Professional

Royle and Laing's (2014) research was the closest study to this research. However, their interview data included participants in managerial positions who would at least have four-plus years of experience. From this research, it can be concluded that entry-level professionals want more training in order to feel competent in the non-technical side of digital marketing than actually learning every new emerging technology. While there were some respondents who agreed that technical skills are the basic need, there was the majority who thought that skills required in the workforce go beyond technical abilities. They discussed how non-technical skills are valued indirectly and how these skills impact their performance. The part where learning the soft-skills, or giving importance to non-technical skills, was not identified in Royle and Laing's research model, and it seems to be more important to understand the voices of young professionals.

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Limitations

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The current study used qualitative analysis, probing the use of skills learned from college translated to the workforce by the entry-level employees. This study did not include the quantitative aspect of a larger sub-set. Future studies can gather more data using survey methodology to get a rigorous analysis of the quantitative aspect. It could include a wider scope by surveying people of different perspectives like getting the employer's and the academia's

view of skills gap in digital marketing. Future studies must focus more on getting entry-level

employees from different backgrounds working in digital marketing. There seems to be fair

evidence that there are not many academic studies while speaking of digital marketing. Studies

in the future must also consider exploring the reason behind the lack of academic research in this

particular area.

References

Akar, E., & Topcu, B. (2011). An examination of the factors influencing consumers' attitudes

toward social media marketing. *Journal of Internet Commerce*, *10*(1), 35-67.

Boone, L. E., & Kurtz, D. L. (2011). *Contemporary marketing*. 15th edition. Mason, OH:

SouthWestern. Cengage Learning.

Brady, M., Fellenz, M. R., & Brookes, R. (2008). Researching the role of information and

communications technology (ICT) in contemporary marketing practices. *Journal of*

Business and Industrial Marketing, *23*(2), 108–114.

Brynjolfsson, B., & Schrage, M. (2009). The new, faster face of innovation: Thanks to

technology, change has never been so easy-or so cheap. *Wall Street Journal and Sloan*

Management Review.

Crush, P. (2011)*. Filling the digital skills gap. *Marketing,* July 13, 2011*, 33–34.

Dacko, S. G. (2001). Narrowing skill development gaps in marketing and MBA programs: The

role of innovative technologies for distance learning. *Journal of Marketing Education,*

23(3), 228-239.

Day, G. S. (2011). Closing the marketing capabilities gap, *Journal of Marketing*, *75*, 183–195.

Digital Skills Gaps Impede Marketing Automation Gains. (2016). CMO Council.

http://www.prnewswire.com/news-releases/digital-skills-gaps-impede-marketing-

automation-gains-300295739.html

Dodson, I. (2016). Digital Marketing Institute. Http://banda.Ie

Gutierrez-Leefmans, C., Nava-Rogel, R., & Trujillo-Leon, M. (2016). Digital marketing in an

emerging country: Exploratory study of the marketing mix of SMES with trust seal.

REMark, *15*(2), 207.

IBM Institute for Business Value (2011). From stretched to strengthened – Insights from the

      Global Chief Marketing Officer Study. IBM CMO C-suite Studies.

Leeflang, P. S. H., Verhoef, P. C., Dahlström, P., & Freundt, T. (2014). Challenges and solutions

      for marketing in a digital era. *European Management Journal*, *32*(1), 1–12.

Mangan, K. (2016). 2-Year Colleges Try Digital Marketing to Stem Enrollment Decline.

      Chronicle of Higher Education, *62*(34).

Marketing service companies; Merkle hosts digital marketing education program for college

      students. (2011). *Marketing Weekly News*, 682.

McAfee, A., & Brynjolfsson. E. (2012). Big data: The management revolution. *Harvard*

      Business Review, 90(10), 60–68.

McClean, Chris, Carol Reid, and Fred Scharf (1998-1999). The development of transferable

      skills in business studies degrees. IBAR 19/20 (1): 47-64. Melton, Reginald. 1997.

      Objectives, competences, and learning outcomes. London: Kogan Page.

Michaelidou, N., Siamagka, N., & Christodoulides, G. (2011). Usage, barriers and measurement

      of social media marketing: An exploratory investigation of small and medium B2B

      brands. *Industrial Marketing Management, 40* (7), 1153–1159.

Miller, R. K., & Washington, K. (2016). RKMA market research reports. Retrieved September

      26, 2016, from www.rkma.com, http://www.rkma.com/rit/b2b16/

Miller, J., & Glassner, B (2011). The "Inside" and the "Outside": Finding realities in interviews

      D. Silverman (Ed.), Qualitative Research (3rd ed.), *Sage*. 99-112

NMA Newsdesk (2007). Govt bids to fill digital skills gap. *New Media Age*, p. 1

Omar, A., Ramayah, T., Lin, L. B., Mohamad, O., & Marimuthu, M. (2011). Determining factors

    for the usage of web-based marketing applications by small and medium enterprises

    (SMEs) in Malaysia. *Journal of Marketing Development & Competitiveness,* 5(2).

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015).

    Purposeful sampling for qualitative data collection and analysis in mixed method

    implementation research. *Administration and Policy in Mental Health and Mental Health*

    Services Research, *42*(5), 533-544.

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks,

    CA: *Sage*.

Reibstein, D. J., & Day, G. S. (2009). Wind. Guest editorial: Is marketing academia losing its

    way*? Journal of Marketing, 73*, 1–3.

Robert, A. (2015). Smart Insights - http://www.smartinsights.com/managing-digital-

    marketing/personal-career-development/the-digital-marketing-skills-gap/

Royle, J., & Laing, A. (2014). The digital marketing skills gap: Developing a digital marketer

    model for the communication industries. *International Journal of Information*

    Management, 34(2), 65-73.

Ryan, D. (2014). Understanding digital marketing: marketing strategies for engaging the digital

    generation. Kogan Page Publishers.

Stone, M. (2014). Building digital skills through training. *Journal of Direct, Data and Digital*

    Marketing Practice, *16*(1), 3-14.

Stone, M. D., & Woodcock, N. D. (2014). Interactive, direct and digital marketing. *Journal of*

    Research in Interactive Marketing, 8(1), 4-17.

Susanne, C. (2015). Smart Insights - http://www.smartinsights.com/managing-digital-

    marketing/personal-career-development/digital-marketing-skills-gap/

Trainor, K. J., Rapp, A., Beitelspacher, L. S., & Schillewaert, N. (2011). Integrating information

    technology and marketing: An examination of the drivers and outcomes of e-marketing

    capability. *Industrial Marketing Management, 40*(1), 162-174.

Scott, W. A. (1955). Reliability of content analysis: The case of nominal scale coding. *The*

    Public Opinion Quarterly, 19(3), 321-325.

Wood, F. (2011). Mind the gap. *The Bookseller*, 5486 (2011), pp. 22–26.

Wymbs, C. (2011). Digital marketing: The time for a new "academic major" has arrived. *Journal*

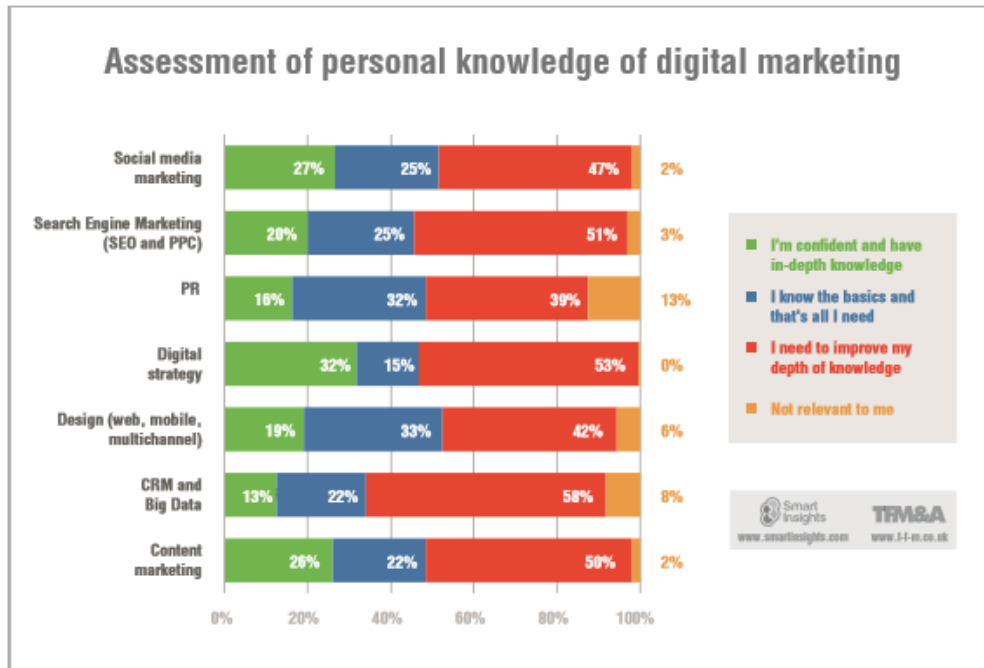   *of Marketing Education*, *33*(1), 93–106.

Appendix A:

Figures

Figure 1. Smart Insights (2015)
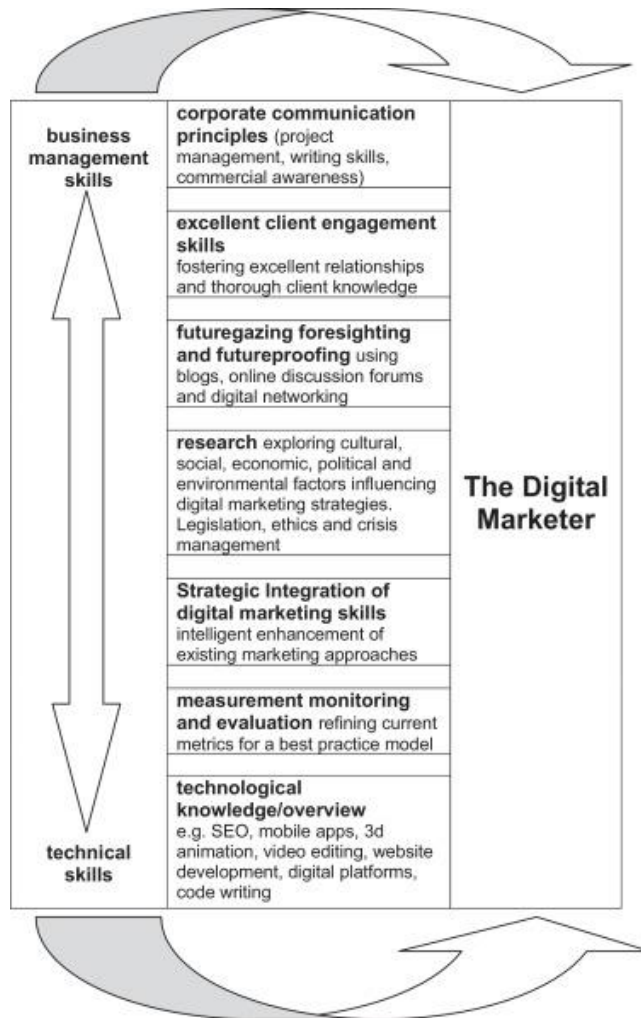
Figure 2. Smart Insights (2015)

Figure 3. Digital Marketer Model by Royle and Laing (2013)

Appendix B

Name	Place of work	Job Title	College education	Years of exp
Aashish Bansal	Fareportal - online travel company	Product Analyst	Undergrad - Computer Science, Masters - MBA, Information management/Marketing	2 yr
Chandana Nambiar	Arete Pharmacy - Merger - B2B business	Web Analytics, Intern	Undergrad - Bachelors in Commerce Masters - MBA, Information management and Digital Marketing	1 yr
Jerome Jackson	RIT, Development and Alumni Relations	Assistant Director, Crowdfunding and Social Media Marketing	Undergrad - Communication Masters - Public Policy MBA - Entrepreneurship	1.5 yr
Alison Schermerhorn	Intuit - Tax assistant company	Product Management Co-op	Undergrad - BS New Media Marketing and Management Information System	3 Mons

Kevin Greenauer	Reil Brand - coding brand	Brand Analyst - part time	Undergrad - BS New Media Marketing	3 Mons
Andreya Motealegre	Carrot Creative - A vice company	Production Design Intern	Undergrad - BS New Media Design, Visual Culture	4 Mons
Catherine Kaucic	TDNK - Transform Data Into Knowledge - Financial Data software company	Marketing Intern	Undergrad - BS Marketing/Digital Business and Advertising	4 Mons
Yacarely Mairena Dávila	Freelancer	Market Researcher	MBA - Marketing and Information Management	3 Yr
Yamille Mendieta	Chef pepper - Restaurant chain	Marketing Coordinator	Undergrad - BS in Marketing Grad - MBA in entrepreneurship	1.5 yr
Mackenzie Pollock	Sapient Nitro	Associate Project Manager	Undergrad - BSAd and Public and Relations	1.5 yr
Erin Sainka	Dartmouth college	Assistant Director,	BS Journalism	3 Yr

		Digital Engagement		
Jenna Deutsch	Sapient Nitro	Program Manager, Ad Agency	BS Advertising and PR minor in Marketing	2.5 Yr