Case Study
Defining an Emerging Occupation: Who is the Social Technology Enabled Professional (STEP)?

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Introduction
We live in an era in which the shape and nature of the workplace shift overnight. Innovations in technology alter the context, the approach, and the speed by which workers address and solve everyday problems in their jobs. While companies assimilate these technologies to improve their productivity, their demand for workers possessing the needed skill sets exceeds their availability more often than not. Bearing a large responsibility for building these skill sets, colleges and universities confront a double challenge. As faculty scramble to keep abreast of new technologies and to attain the skills to use them effectively, they are also faced with organizing education and training curricula in a coherent manner that reflects the changing contours of work. In the case of the explosive growth of social media, institutions of higher education are confronted with a new technology which not only affects the manner in which work is done, but which increasingly acts as the doorway to employment for their graduates.

In large part, higher education students already “reside” on social media. The Pew Research Center reports that 65% of American adults are Internet users and that 76% of those users are now active on social media. The percentages are even higher for the age group that would typically attend higher education institutions: for individuals ages 18–29, the rate of social media usage is 90%. The same Pew study also found that men
and women use social media at similar rates and that those with higher levels of education were more likely to use social media (Perrin, 2015).

Businesses have also embraced social media, and are utilizing it for a variety of reasons. One recent report shows that 80% of small businesses use social media for marketing (Wasp Barcode Technologies, 2016). Another report places the percentage of all businesses using social media marketing at 96%, with more than 90% claiming that social media is important to their marketing efforts (Stelzner, 2015). Beyond marketing, employers have turned to social media to identify and recruit their workforce. Nearly 85% of organizations currently use social media for the purposes of recruiting employees, and another 9% plan to (Maurer, 2016). Most organizations (89%) use social media to post job advertisements and 75% use it to contact candidates (Maurer, 2016). The number of employers using social media to screen employees has increased 500% (Nikravan, 2016). Once employed, workers are increasingly expected to use social media in appropriate and productive ways. Nearly 80% of workers use social media on the job for purposes ranging from finding information they need to do their job to connecting to experts (Olmstead, Lampe & Ellison, 2016).

Education Development Center’s (EDC) Social Technology Enabled Professional (STEP) project has developed products that can assist higher education faculty in preparing students to use social media both to market themselves and to perform necessary work tasks efficiently. STEPs are individuals who are highly skilled in applying social media for the specific purpose of building a business brand. STEPs can be found in small start-up companies, multi-national corporations, non-profit community organizations and faith-based organizations. With the support of the National Science Foundation, and in partnership with industry experts, EDC has defined the work of the STEP and produced tools that can help any college student create a professional brand that will advantage them in competitive job markets.

EDC is a global non-profit organization that develops, delivers, and evaluates innovative programs to address some of the world’s most urgent challenges. Working with public-sector and private partners, EDC works to improve education, health promotion and care, workforce preparation, communication technologies, and civic engagement. EDC currently manages 250 projects located in 23 countries. Within its Learning and Teaching Division, EDC senior staff bring more than 20 years of experience developing tools that define new, emerging professions, as well as traditional professions undergoing significant change.

The materials and processes described in this case study draw upon the expertise and experience of leaders in the field of social media. These products (the STEP occupational profile, the STEP performance rubrics, problem-based learning lessons, and eBook) build upon previous work by EDC that seeks to define emerging occupations, to identify what individuals need to know and be able to do to succeed in them, and to create
frameworks for assessing worker performance. This collection of materials provides sufficient detail and rigor for them to be used by educators and employers to develop education/training programs, materials, courses and assessments.

**Developing the profile of a Social Technology Enabled Professional (STEP)**

The foundation of EDC’s STEP project was a panel of ten social media experts recruited from both business and academia. The diversity of the panel was demonstrated by their area of social media expertise, years of experience using social media, size of business, type of academic setting, gender, and geographic location.

Once the panel had been assembled, EDC provided it guidance for creating a “learning occupation”. The “learning occupation” is a concept EDC has adapted from best practices in worker training in Germany and other European countries (Leff & Aring, 1995). A learning occupation is an invented construct that does not exist in the workplace; nor does it correspond to a specific occupational title or description. Rather, it represents the combination of cross-cutting tasks, knowledge, skills and attributes required to perform a range of job functions conducted in a group of related real-life occupations. In effect it is a concise occupational definition. Moreover, it establishes the parameters for the ensuing work of the expert panel.

After long discussion and deliberation, the panel agreed upon the following wording for its learning occupation:

The Social Technology Enabled Professional builds, maintains, manages and leverages online social networks to engage with customers, business partners, employees and key influencers with the goal of building organizational success.

Using this definition, EDC facilitated the panel through a modified “DACUM” analysis (Norton, 1997). DACUM (Developing A CUrriculuM) is an intensive two-day focus group session during which practitioners in an occupational field identify the major areas of work and the constituent tasks that define successful job performance. Processes like this rest upon three basic principles:

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• expert workers can describe and define their job more accurately than anyone else,
• an effective way to define a job is to precisely describe the tasks that expert workers perform, and
• all tasks, in order to be performed correctly, demand certain knowledge, skills, resources and behaviours.

During its focused dialogue, the panel identified all job responsibilities (large and small) incumbent upon a Social Technology Enabled Professional as defined by the learning occupation. These responsibilities were expressed in brief statements that describe concrete, observable activity using a single verb and object. The final wording of each statement was achieved through group consensus. The purpose of this exercise was to achieve a high degree of specificity and clarity in the description of activities performed by a STEP.

Once all activities were identified, the panel organized them into major areas of responsibility (i.e., duties) and their constituent tasks. This organization of duties and tasks is depicted as a matrix in the STEP profile (See below). While the tasks within a duty are not organized in terms of priority or importance, the panel did try to arrange them in a logical sequence if at all possible. To complete the profile, the panel identified those elements that enable a STEP to perform these activities. In short, these elements include:

• a list of the skills and knowledge necessary for a STEP to perform his/ her responsibilities,
• a list of worker behaviours, or attributes, demonstrated by a successful STEP, and
• a list of the essential equipment, tools and supplies needed to perform the responsibilities of a STEP.
The lists are not intended to be exhaustive, but represent what the panel believed to be a fairly complete picture of what skills, knowledge and behaviours an effective STEP is likely to exercise in his/her job. Lastly, the panel identified future trends and concerns that help define the current context in social media.

**Validating the profile**

The profile developed by the panel was broadly disseminated to social media experts throughout the United State to enable them to review and comment on it. Over a period of four months, social media experts accessed an online survey EDC adapted from tools it has used to validate occupational profiles from a variety of professions. The aim of this validation process was to insure that the profile authentically represents the work of a STEP and that it has broad applicability. The survey asked respondents to do four things:

- to provide basic demographic data about themselves,
- to determine the importance of each identified task in the performance of their job,
- to identify the frequency by which each task is performed, and
- to vet the additional lists developed for the profile (skills and knowledge; behaviours; equipment/tools/supplies and current context).

The combination of importance and frequency scores were used to understand the “view from the field” of the priorities of a STEP. Using Likert scales, respondents described the importance of each task as “Critical, Necessary, Useful, Not Useful or Not Applicable” and described frequency as “Daily, Weekly, Monthly, Rarely...
and Not Applicable.” Respondents were also given an opportunity to indicate how useful the equipment/tools and supplies listed by the expert panel are to their own work, and how frequently they used them. A final section of the survey allowed respondents comment on the profile as a whole.

A total of 117 individuals whose use of social media is essential to their work, answered at least some portions of the survey. Respondents represented sixteen different states, as well as industry sectors that included education, information technology, marketing, health science and manufacturing. The responses of those completing the survey indicated that with the exception of minor revisions, the profile successfully captures the essential work responsibilities of STEPs, and identifies those attributes that contribute to their success.

**Reading the profile**

The core of the STEP profile is the two page matrix that defines who a Social Technology Enabled Professional is and articulates what it is that he or she is expected to do. The panel's definition is printed on top of the matrix and is intended to be general enough that every STEP can “see” himself/herself in it.

The matrix itself organizes the work of a STEP into major responsibilities (duties) and their constituent tasks. The panel generated this collection of tasks intending to be comprehensive and without intending to imply that any one STEP would perform every single one of them. The six duties are listed numerically on the far left column and represent major areas of work. They include:

1. Conduct Research
2. Create a Social Networking Strategy
3. Establish an Online Presence
4. Create Content to Engage Community
5. Manage Online Presence
6. Engage in Professional Development/ Ongoing Learning

The tasks run in rows horizontal to the duty they represent. Each task is referenced with the duty number and letter. For example, the task “Consults with communications or marketing colleagues” is referenced as (1A) indicating it is the first task listed for Duty One. Similarly, the task “Defines goals and objectives of social media strategy” is referenced as (2A) to indicate that it is the first task of Duty Two, etc. The panel ordered
the tasks to reflect the sequence of performance whenever possible, rather than ordering them in terms of importance.

The knowledge, skills and behaviours that enable a STEP to be effective are listed alphabetically on the last page. The lists are not intended to be exhaustive but represent the consensus of the panel, with additions drawn from the results of the validation survey. The list of future trends and concerns provides a snapshot of factors that affect the use of social media in the workplace by STEPs. EDC consults with members of the panel on a regular basis to insure that the list of equipment/tools and materials is updated to reflect changes in the workplace.

**Developing the rubrics**

Rubrics not only provide valuable assessment guidelines for faculty and on-the-job trainers, they help them translate the profile into curriculum. For the purposes of its workforce development projects, EDC understands a “rubric” to be a scoring tool that specifies the level of performance expected for individuals developing proficiency in their field. Rubrics illustrate degrees of effectiveness in performing a task by contextualizing that task in statements that describe specific, observable work activities. Using a methodology that has been successful across a number of professions, EDC guided the panel through a process that resulted in the development of a set of performance rubrics for each of the duties.

Drafting language that illustrates various stages of work activity is the key to designing performance based rubrics. EDC does this through the creation of “action statements”. Using action statements to further define work is a practice that evolved out of EDC’s projects involving helping professions. In these occupations, effective interaction with clients typically demands that workers possess special attributes like compassion, active listening and the ability to empower individuals to make their own decisions. The degree to which these attributes exist proves to be difficult to evaluate. However, when these attributes are viewed within the context of the work, their presence is more easily discerned. Determining for example whether or not a nurse offers his services “compassionately” is more easily detected if we are presented with examples of the nurse’s observable behaviours when treating a patient. The purpose of action statements is to provide important, additional information about a job that allows someone to better understand what occurs in the performance of occupational responsibilities.

This same process of creating contextualized examples was performed by the panel. As the panel considered the activities it had articulated in the STEP profile, it developed hundreds of “action statements” that:
• describe concrete activity,
• describe observable activity,
• begin with and include only one verb,
• describe activity using language that is specific and germane to the occupation,
• include parenthetical examples to more fully illustrate the action described, and
• avoid using “evaluative” (e.g. words like “adequate”, “appropriate”, “sufficient”).

The collection of action statements generated by the panel provided the raw material needed to construct rubrics aligned to the duties outlined by the profile. For each of the six duties, the panel reviewed all pertinent action statements and then, painstakingly, arranged them in sequences that illustrate developmental levels of performance mastery. In many instances, the panel developed additional action statements, or revised the wording of action statements. Through several reviews, the panel sought to have each rubric illustrate clearly and precisely a progression of performance of STEP responsibilities.

Reading the rubrics

The STEP rubrics are organized for each duty following the format below:

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<th>DUTY</th>
<th>Performance Areas and Associated Tasks from the Profile</th>
<th>Level One</th>
<th>Level Two</th>
<th>Level Three</th>
<th>Level Four</th>
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<td>Performance Areas</td>
<td>Novice</td>
<td>Approaching Proficiency</td>
<td>Proficiency</td>
<td>Expert/ Exceptional</td>
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<td>and Associated Tasks</td>
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The far left column on the rubric charts lists the performance area for the duty being analysed. Performance areas integrate one or more STEP tasks. These related tasks are indicated beneath the performance area description (see example below).
The columns to the right of the performance area present four performance levels that show incremental levels of effectiveness. These levels range from Novice, Approaching Proficiency, Proficiency and Expert/Exceptional. By definition, the “Novice” level represents the performance of someone with basic competence using social media skills to develop a business brand and network. In the case of novices, one would see the presence of social media skills that still require further development. The level designated as “Approaching Proficiency” indicates a more highly developed skill level and a more mature integration of social media skills into one’s job. The “Proficiency” level provides examples that describe a stage of skill development expected of an effective STEP. This is someone who is able to integrate and to apply social media skills and knowledge to solve complex problems. Finally, the performance level “Expert/Exceptional” includes statements that indicate exemplary social media skills. In many ways this individual becomes a role model to other STEPs.

The performance statements illustrate levels of effectiveness within the performance area. They are, in effect, performance indicators. When used to assess performance, performance statements presume mastery of the performance levels to the left. So for example, within a line of a rubric, being proficient at a task presumes being able to do the activities described at the basic competence and approaching proficiency levels.
Below is an example of a rubric for Duty One of the STEP profile, “Conducts Research.” Note that the expert panel grouped four related tasks from the profile under one performance area. The panel believed that in the workplace, this collection of tasks would more likely be evaluated together, rather than independent of each other.

**Using the profile and rubrics**

The STEP profile and rubrics have the potential to be used in a variety of ways. For example, they might be used as:

- a resource to assist faculty in integrating social media skills into existing curricula,
- a resource for community colleges and training programs to develop relevant continuing education programs for STEPs,
- a resource to be used in the recruitment of prospective STEPs,
- a framework for reviewing social media curricula to determine their relationship and applicability to the work of STEPs as defined by those in the field,
- a framework for developing learning/serving agreements for interns and their supervisors, and as
- a resource for STEPs to conduct a self-assessment and develop a plan for professional development.

**Developing lessons that integrate the profile and rubrics**

Building off of the profile and rubrics, EDC developed sample lessons to illustrate how educators might begin to prepare their students to perform the work responsibilities of a STEP. The expert panel was reconvened and together they drafted short paragraphs that described real life problems that they had encountered in their own work. Each of the problems presented a situation that demanded effective application of the social media skills identified in the STEP profile. From these brief problem scenarios, EDC selected three to convert into longer narratives and comprehensive lessons, targeting in particular, students in technical programs at community colleges or universities. These longer narratives depict authentic, yet common workplace problems that any student aspiring to become a STEP might reasonably expect to encounter. The three narratives involve:

- a small technical company that wants to attract new customers and to build its brand,
- professionals who decide to increase their networks to establish a stronger position in the field, and
- a company that realizes it needs a central communication and knowledge sharing system to stay efficient and well-informed as it grows.

Based on these problem based narratives, EDC created [three fully-formed, online, free lessons](#):
Using Social Media to Establish and Grow an Online Presence for Your Business
Establish a Social Media Network within Your Field
Knowledge Sharing in your Organization

Each lesson comes in three versions. One version provides a teacher’s guide that includes all materials needed for using the lessons in the classroom. Those materials include:

- a problem scenario describing an authentic business challenge;
- step-by-step instructions that enable the instructor to facilitate students through the process of addressing the problem scenario;
- activity templates that students use to record their work as they wrestle with the problem scenario;
- a variety of supplemental resources, and
- tools to guide assessment of student learning.

While they are aligned to the problem scenario, the step-by-step instructions walk students through activities that are integral to effective marketing and effective use of social media. Students are afforded an opportunity to practice tasks relevant to any business marketing endeavour, such as conducting research of the field, planning strategy, and developing engaging content. The resources include quick instructions and links on how to use social media platforms relevant to the lesson as well as links to background reading and useful tools. The assessment tools include both rubrics that provide indicators of proficiency and examples of best practice student work.

Using these guides, faculty can tailor a lesson to their course and their students. For example:

- students can work individually or in teams;
- faculty can facilitate the students through the lesson one step at a time or can have the students work through the lesson on their own;
- faculty can teach the course face-to-face or online;
- faculty can vary the content to make it more relevant to their course. For example, one community college faculty member used a lesson to help her technical students prepare for their eventual job search using LinkedIn. The students researched sites of companies they might submit applications to and then developed their own LinkedIn site. Another instructor used the course more broadly with students in her social media 101 course. She had students conduct research about how their target company uses social media to promote business and customer service.
A second version of the lessons eliminates the step-by-step instructions and assessment sections, but includes the problem scenario and resources sections. Instructors can give students this version as a problem-based learning activity, requiring them to take greater responsibility for their own learning.

The third version is a self-directed guide that contains all the materials of the Teachers version, allowing anyone to learn the targeted social media skills at their own pace.

The lessons have been piloted and field tested by six community college faculty for classes in IT, social media, and career planning. The lessons were delivered in both face-to-face and online class formats, and were either teacher facilitated or self-paced. One of the classes was dual-credit, and thus included high school students as well as college students. Faculty collected the filled-in activity templates from their students as to assess student progress and the level of learning.

Instructors piloting the lessons reported the lessons lent themselves to easy adaptation to existing course syllabi. Visit this webinar to hear them talk about their experiences.

In their end-of-course evaluations, all six faculty agreed or strongly agreed with the following statements:

- The lesson addressed the stated objective.
- I was able to find what I needed quickly.
- I enjoyed using the lesson with my students.
- My students seemed to learn from the lesson.
- My students will be able to apply what they have learned.

Five of the six faculty agreed or strongly agreed with these statements:

- This lesson was easy to use.
- It was easy to navigate within the lesson.
- I found the lesson website to be attractive.
- This lesson was effective in increasing my students’ level of skill and knowledge in using social media to develop a business brand (Lesson 1), network (Lesson 2), or in developing and internal system for sharing and communicating (Lesson 3).

Faculty identified two challenges to delivery of the lessons: 1) having sufficient time to complete the assignments because as field testers they felt responsible for having students complete every step and 2)
reserving enough computer time for their students. Several instructors also expressed difficulty having students complete assessment surveys at the conclusion of their lessons.

Sixteen of 17 students who completed an end-of-lesson survey on the Lesson Using Social Media to Establish and Grow an Online Presence for Your Business agreed or strongly agreed with the following statements:

- I enjoyed the lesson.
- This lesson was easy to use.
- I will be able to apply what I have learned.
- I will likely recommend this lesson to another student or friend.

Sharing project products with a larger audience
EDC has pursued a variety of methods to disseminate STEP materials and to present STEP content in a manner that is accessible and schedule-friendly for those wishing to access it without working their way through each lesson. These materials can be useful to higher education professors in using social media to promote their own courses or programs and to assist their students promote their work and themselves. The materials can also be useful for students as they consider social media in job searches and in promoting their own businesses.

These free materials include:

- **Webinars**
  Four webinars were created to draw attention to the STEP lessons. Each featured social media experts who discuss recurring work challenges, offer strategic tips, or explain how to use essential social media tools. Webinar topics include: 1) Five steps for using social media to build a business; 2) Strategies to use social media to build a brand and to grow a college program; 3) A basic introduction to Twitter and 4) An introduction to Hootsuite and other social analytic tools. Archives for all can be found on the STEP website’s Events page: https://sites.google.com/site/edcsteppublic/home/events.

- **Video clips**
  Webinars are produced once, and while archives serve a valuable purpose, many would prefer to watch a live production rather than an event that has already occurred. Recognizing this, EDC edited the webinars into 1- to 3 minute video clips that can be easily linked and integrated into social media, emails, other webinars, and into the eBook that is described below. A total of 43 clips have
been produced thus far. These are available for public use and can be accessed on the Social Technology Professional YouTube channel: https://www.youtube.com/user/socialtechprof/videos.

- **Videos**
  To provide examples of how social media is used by real businesses, EDC hired Viz-Bangl, a Massachusetts online video and social media company to produce three videos. Each video presents a local business person introducing a STEP lesson by describing how they use the skills addressed by the lesson in their jobs. The three videos are available on the STEP YouTube channel listed above. Additional videos, also available on the STEP YouTube channel, feature social media experts discussing how businesses can take best advantage of the data generated by social analytics. These videos provide tips for engaging an audience and for extending the reach of social media messaging.

- **eBook**
  A newly produced eBook entitled *5 Steps for Using Social Media to Promote Your Brand and Build Your Business*, captures the full range of products EDC has developed through the STEP project. It integrates the occupational profile, rubrics, lessons and videos, and offers a highly interactive way for readers to engage the material. A sample page of the eBook is shown below. The eBook has been published as an iBook in the Apple iBooks store.
In conclusion

The collection of materials described in this case study can contribute to the creation or enhancement of college work-based learning programs. Many universities in the United States offer co-operative education programs, viewing them as a valuable preparation for career success. Co-op programs provide students opportunities to practice their professional skills as student employees in industry settings by alternating between academic and work-based learning. These experiences help students develop a vocational identity and self-efficacy by helping to clarify their career interests and goals (Esters & Retallick, 2013). Upon graduation, co-op students are more likely to be employed and to be employed in positions related to their education than students who have not participated in work-based learning programs (Goho & Rew, 2009). In addition, co-op graduates demonstrate higher earnings (Walthers & Zarifa, 2008), as well as a greater sense of organizational commitment and sense of power on the job (Brown, 1984). Work based learning programs can also build bridges between post-secondary institutions and industry partners. These public-private partnerships position universities as key stakeholders, who along with industry, government and NGOs are visible leaders in building robust national economies and strong communities.

The example of the Social Technology Enabled Professional project describes an approach for developing instructional programs that are anchored to rigorous, authentic and relevant work skills that have been articulated by experts in the field. It is an approach that can be customized to define both new and emerging occupations as well as those that are changing substantively because of new technologies, processes or
cultures affecting their work environments. EDC has employed these methods to define the work of bioscience technical specialists when the biotech industry was first gaining traction in the American economy. It has applied the same methods to analyse and redefine occupations in the manufacturing industry as they shifted from traditional to high performance. Today, as professionals across a wide range of industries come to grips with the exponential growth of data and the necessity to incorporate data analytics into daily operations, EDC is again using these strategies to define the work of the Big Data Enabled Specialist as it evolves in the workplace. To learn more about EDC’s workforce development projects visit Pathways to College and Careers at http://ltd.edc.org/college-careers.

References


