

ONLINE TOOL FOR SOFT SKILLS EVALUATION AND EMPLOYEE MANAGEMENT

Dragos-Paul Pop¹

ABSTRACT

In today's busy economy, big companies often outsource their new job openings to recruiting agencies, because finding the right candidate for a job often implies a series of complex interviews and screening. This process is better managed by a specialized company that employs professionals like psychologists and recruiting personnel that can better manage a large number of candidates and filter the best people for a certain job opening. Of course, for complex jobs, the final part of the interview is still done by the employer, but the recruiting agency provides a very important report on the candidate's soft skills. These skills are a very important set of characteristics defining every candidate and they are more important than occupational skills on the long term for some professions. Soft skills are behavioural competencies and are often associated with a person's EQ (Emotional Intelligence Quotient). This is a set of traits regarding personality, communication, language, habits, social interaction, optimism, emotions, feelings, insights and friendliness that define a person's relationship with other people. This set of characteristics or skills complement a candidate's hard skills that define the occupational requirements of a certain job. Unlike hard skills, soft skills are not easily demonstrated by CV, diploma or certificate and can only be evaluated by specialists like psychologists. Just like hard skills, behavioural competencies can be developed and improved over time. In this paper, we outline the structure, methodology and characteristics of an online tool we are building that will allow people to determine their soft skills levels and provide insight on how to improve certain aspects. Also, the tool allows employers to test their candidates and employees in order to see how they evaluate against a certain set of competencies that the company deems important. Employers will see how their employees grow over time and how the market evolves through complex reports and tools that the software provides. Companies can build and manage recruiting projects and evaluations, setting levels over certain competencies and inviting candidates and employees to undergo certain tests that our software generates. These tests are built using our own methodology that is described in this paper.

Keywords: soft skills; behavioural competencies; recruiting; employee management; online tool.

1. INTRODUCTION

Daniel Goleman's 1995 "Emotional Intelligence: Why it can matter more than IQ" book was a huge success and rapidly became a best seller. The reason behind the book's incredible success is that the author, a psychologist and former New York Times reporter, based the book on years of research. He tried to prove that emotional intelligence is twice as important compared to IQ or technical skills in the overall success of a person for a

¹ Assistant Lecturer, Romanian-American University, 1b Expozitiei Blvd., Bucharest, 012101, Romania, pop.dragos.paul@profesor.rau.ro

certain job. Because of the success this book had, Daniel Goleman published a follow-up in 1998 titled “Working with emotional intelligence”. With this second book, the author proved, using information from studies on more than 500 organizations, that soft skills can help both companies and employees become more successful. This means that traits like personality and character are important factors on the job. [1]

Society and culture dictate that the workplace is not a place for emotion. Instead, it is a place governed by reason and logic and intelligence is the most honoured trait. But this is not entirely true, because we sometimes see how brilliant students fail when faced with the reality of trying to hold on to a job. On the other hand, there are also a lot of examples where students that did not do so well in school turn out to be great entrepreneurs. The reason behind this fact is that IQ is just one measure of performance. In fact, IQ is a limited tool to measure performance.

Whether we like to admit it or not, emotions are an intrinsic part of our biological makeup and we can all agree that the ability to manage our emotions can help us better cope with setbacks, make better business calls and more efficiently interact with other people. The following statistics that Daniel Goleman reveals in his book really prove these facts. [1]

- Emotional competencies like trustworthiness, adaptability and collaboration were 2 out of 3 abilities vital for success in a study based on 181 jobs at 121 companies worldwide;
- Another study shows that, when hiring graduates, corporations mostly look at elements of emotional intelligence like communication skills, interpersonal skills, and initiative;
- Surprisingly, emotional intelligence is also important for jobs like computer programming where the top 10 percent of performers exceed average performers in producing effective programs by 320 percent, while the very best performers, the top 1 percent, were 1272 percent better than the average. When these top performers were assessed it was discovered that they were better than others at things such as teamwork and sharing. In other words, the very best performers did not compete, they collaborated;
- Lastly, studies of almost 500 organizations worldwide revealed that employees that scored highest on EQ test were the ones that eventually rise to the top of companies.

The online tool described in this paper provides a way for recruiting agencies and companies to test job candidates and employees and determine their soft skills levels and record their history in order to keep a detailed report for each person.

The current process for soft skills testing is the face to face interview, which can be a very time consuming process. Our online tool aims to automate this process and allow recruiters and human resources managers to evaluate larger groups of employees and candidates at once. Also, by providing detailed reports and comparison graphs, managers can compare and choose the most appropriate candidate for a certain job type.

Other benefits for managers that our tool provides are the ability to build and benefit from a large pool of candidate and employee soft skills reports, evaluate market trends in soft skills requirements for certain job positions and overview the overall recruitment market evolution.

The paper is structured in 5 sections. After the first one, “Introduction”, we define what soft skills are, in the second section “Soft Skills”, and why they are important in the recruiting process of today. Next, in the third section, “The problem”, we outline the issues that recruiters face when evaluating soft skills for large groups of candidates. The following section, “The solution”, describes our proposal for a methodology that allows our online tool to automate the evaluation process. Lastly, we close the paper with the “Conclusions” section, acknowledgements and references.

2. SOFT SKILLS

A literature search for what soft skills are gives us an overview on this term. Thus, according to [2] soft skills describe career attributes that employees should possess, such as communication skills, team skills, time-management skills, ethics and an appreciation for diversity and are important in every business sector. The article [3] defines soft skills as being the cluster of personality traits, social graces, facility with language, personal habits, friendliness, and optimism that mark people to varying degrees. Also, soft skills play an important part in shaping the personality of an individual. [5]

In order to see why soft skills play such an important role in the workforce market of today we need to understand how soft skills and hard skills combine to determine the overall quality of an employee.

When thinking about what qualities make for a successful employee in a domain like information technology strong technical skills are a sine qua non. Because of this, for example, the stereotype for the IT professional is a person who is overly interested in technology. This is perpetuated by the fact that companies that hire IT professionals often focus on the hard skills that are needed to perform the job, such as the number of years of experience in programming in a certain language. [4]

However, technical skills alone are not sufficient for success and there is a growing awareness of this fact among companies. Today’s distributed, complex and dynamic workplace requires employees that possess a broader set of soft skills rather than only pure technical skills. A reason for this is outlined in an online article [10] by Adecco, a big human resources company, which states that candidates with sufficient academic qualifications are aplenty, but the real challenge is finding the candidate with the right set of complementary soft skills and that companies are more inclined to hiring candidates that demonstrate a high level of soft skills on top of their academic qualifications.

The same feeling is underlined by Ron Torch, CEO and Chief Marketing Officer of Torch Group Inc., another human resources company. In an online article [11] he outlines the top five most important soft skills in the market in 2013 as follows: communication, adaptability, teamwork, integrity & work ethic and positive attitude. The reason behind the growing importance of soft skills is that people that know how to handle themselves and work and in relation to customers can help a company gain a competitive edge.

Furthermore, authors of article [9] say that soft skills are so important because they predict and produce success in life.

How the workforce market is changing its requirements is outlined in an article [6] that shows how employers place more importance on soft skills rather than technical ones. A

study by the authors of this article reveals that the most advantaged professionals are the highly skilled IT employees, because soft skills gave them an additional dimension to their work.

The paper [7] explains how a web survey completed by 227 IT professionals indicated that even though an eclectic mix of skills is needed for computer programmers, technical and soft skills are viewed as more important than specific business skills.

A study on higher education in Europe, “Graduate Employability, ‘Soft Skills’ Versus ‘Hard’ Business Knowledge: A European Study” [8], with data collected from four countries (Austria, Slovenia, UK and Romania) identified the interpersonal competencies (soft business-related skills) that employers think are more important for graduates just entering the job market.

According to the same article, the most important generic competency is written and oral communication. Employers from all four countries agree that high levels of this competency greatly helps graduates and is an important factor in shaping their employability.

Another highly regarded competency is team-working and it is regarded as a vital part of a graduate’s portfolio. Lastly, thinking innovatively is the third competency that employers highly value, according to [8].

The article [3] shows that a survey of over 250 technical leaders found that the biggest reason for project failure is the lack of soft skills. The author also argues that when soft skills are developed to complement hard skills, personal productivity, synergy and collaboration are increased. This also means that project success rate grows and this fact leads to higher profitability levels for companies.

The same article shows that there are three driving forces behind the increasing demand for a broader skill set from company leaders. These forces are the necessity for improvement to the bottom line, increasing competition and globalization.

3. THE PROBLEM

While hard skills are rather easy to evaluate for a given candidate, the same is not true for soft skills. According to [9] achievement tests are not good at evaluating soft skills because these tests miss or do not capture soft skills that are valued in the labor market.

Also, while a lot of psychological tests can be used to measure the degree of a competency, there is no tool that can measure the factors that influence the applicability of that competency by an employee, the employee’s flexibility or rigidity in regards to applying the competency and what personal effect applying the competency will have over an employee.

Even though a growing importance is placed on soft skills in the workforce market of today, employers often don’t underline such qualities in their job descriptions. This is because of the lengthy competency evaluation process. Moreover, the evaluation must be fine-tuned for a specific position and two candidates applying for different jobs cannot be given the same test. Every position requires different levels for different sets of competencies. This implies the authoring of specific tests by a specialized department, and this generates additional costs for companies.

Even with the increasing importance of soft skills, there is little research done to conceptualize and measure these skills. [4]

Besides measuring the levels candidates and employees have for certain competencies, we believe that a lot more useful information can be obtained from info graphics that show how certain employees and candidates rate in comparison to a requested competency level. Info graphics allow for a faster and more efficient selection of candidates from a greater pool because the accent is placed on statistical data offered in a visual matter, rather than classical text. This way relevant information is easier to compare and filter.

4. THE SOLUTION

The solution to the problems identified in the previous section lies in the methodology used to assess candidates and employees, the way decision makers receive information on evaluations and the way the information is delivered to them. The biggest issue is to create a methodology for evaluation that will not let people that are assessed identify the competency that is evaluated. The reason is that people tend to try and score as high as possible in tests, but a soft skills evaluation should be able to offer a real score that is not influenced by any outside factor.

An extensive literature overview has been presented in article [12]. The authors present the origins and evolution of the competency concept and how competency models are implemented, outlining both the benefits and drawbacks of current and past implementations.

We assess competencies by evaluating certain behaviors that define those competencies. There are five behaviors to each competency that are evaluated by the means of situational items. The candidates must rate a series of statements in accordance with what they feel is closest to their beliefs. Hidden amongst the situational statements are latent statements that act as control keys for a candidates answer. If control statement answer reveals that the situational answers are not in accordance with it, this means that the measure level for a competency is not fake, but rather that the candidate is highly likely to be influenced by outside factors in applying the measured competency. These factors fall under the personal effect category and they define the energy that influences a competency: trust, passion, ambition, balance between personal and professional life, and others.

A third type statement is also found in the evaluation. This is the bipolar statement that is used to measure to what degree a candidate or an employee is likely to choose extremes when applying a competency.

Each competency is defined by three dimensions: content, impact and personal effect. Each dimension is presented in the following figures and a general overview is provided.

Competency Dimension	Defined by	Relevance for business				Competency Dimension	Defined by	Relevance for business
Competency Content 1	Behaviour 1 Behaviour 2 Behaviour 3 Behaviour 4 Behaviour 5	Behaviours Levels	Competency Dimension	Defined by	Relevance for business	Personal Effect 3	Personal Force 3.1.	Confidence Passion Ambition Self empowerment
			Competency Impact 2	Efficiency 2.1.	Flexibility Consistency Development Maturity			Work life balance Stress management
				Practice 2.2.	Frequency Impact		Personal Focus / Drive 3.2.	Personal Burn out
								Focus on people Focus on career Focus on power Focus on expertise Focus on business Focus on personal matters

Fig. 1. (a) Competency content; (b) Competency impact; (c) Personal effect

Figure 1 (a) shows the content dimension for a given competency:

- Each situational statement is made up of one question with five different solutions, each one linked to a different behavior. These questions will show the raw level of the competency;
- The candidate being evaluated does not know the behavior nor the competency that are being tested.

Figure 1 (b) shows the impact dimension of a given competency:

- Flexibility is measured by repeating the same question but in a different context that will require the candidate to adapt. This way we can obtain an accurate measure of flexibility;
- Consistency is measured to show how often will a candidate apply a certain behavior and an overall competency;
- The development level shows how the consistency and the overall competency level are correlated;
- Maturity is measured by questions that use extremes;
- Frequency is a measure of how often a candidate applied the measured competency in the past;
- Impact is calculated as an average between efficiency and self-perception.

Figure 1 (c) shows the personal effect level of a given competency:

- This dimension measures how a competency level is applied in a given situation and if it is influenced by external factors such as confidence, passion and ambition;
- The personal effect dimension offers a comparison between how a candidates answers the questions of the first two dimensions (determining the competency level) and how he perceives himself in regards to that competency.

All three dimensions help generate a report that will give the recruiting manager a better and more truthful insight into the candidate's soft skills levels.

An example analysis for the "Interpersonal Sense" competency is presented next. For the content of this competency we have defined 5 behaviors:

1. Building of efficient relationships;
2. Easy relationship with any organizational level;
3. Relate with tact and diplomacy;

4. Empathy;
5. Naturally defuse tensioned situations.

In order to measure the level for each of these behaviors, we present the candidate with a situation that contains a statement and five actions. The candidate must select the level of agreement for each action.

The statement is: *“A meeting is held in the department in order to analyze the results of the team. A board member attends this meeting. Please rate the following actions with your level of agreement”*.

The actions for the statement are:

- “I will sit next to the colleagues that are going to give information in the meeting”;
- “I will intervene to clarify things when the board calls for it”;
- “I will stand by my opinion even when my colleagues don’t agree”;
- “I carefully watch how others feel during the meeting”;
- “I wait for tensioned moments to pass before I return to the subject of the meeting”.

Each action has a scale of agreement from 1 to 10, 1 being total disagreement and 10 being total agreement. For this example each action determines the level for its’ corresponding behavior (action one gives the level of behavior one and so on). For example a high level for behavior one is choosing 8, 9 or 10 for the first action; a medium level is choosing 4, 5, 6 or 7 and a low level is represented by choosing 1, 2 or 3. The level of the competency content is either homogenous or not homogenous. If all behaviors have the same level (high, medium or low) the competency content level is homogenous.

Competency impact is determined in a similar manner, by measuring the level of flexibility, manifestation, development and maturity.

The degree of flexibility is measured by presenting a situation and 5 statements to the candidate that relate to the behaviors measured before.

The situation is: *“During the meeting the manager expresses his discontent about the repeated breaks that we take during work hours”*.

The statements are:

- “I believe that expressing disagree in a direct manner will not do any good for the team”;
- “I prefer not to be around my manager in certain situations”;
- “Reacting with tact can yield a better response”;
- “I look around to see how others feel about this situation”;
- “I aim to defuse the situation by creating a pleasant moment”.

The level of agreement the candidate chooses for each statement is also a scale from 1 to 10. The strength of the candidate’s agreement correlates to each of the 5 behaviors and gives the level of flexibility for this candidate. A high correlation means low flexibility.

Scoring a high level of flexibility for all statements and behaviors can be interpreted as follows:

- The candidate knows when to invest in relationships in order to obtain the highest level of efficiency;
- The candidate can adapt to the management level with which he interacts;
- The candidate can control his emotions and reactions when he is in a situation that demands tact and diplomacy;
- The candidate takes other peoples' emotions into account when building relationships;
- The candidate possesses a high level of self-control in tensioned situations and can intervene to defuse these situations.

Maturity and manifestation are also measured by asking the candidate to choose a level of agreement for 5 statements. The 5 statements also correspond to the 5 behaviors detailed before.

The statements are:

- "People tend to relate depending on their personal interests";
- "People that say they can easily build relationships with any management level are actually insincere";
- "Sometimes it is better to state your mind even if not everyone agrees";
- "People tend to value others emotions too much";
- "Tensions will defuse on their own if we do not intervene".

The level of maturity is given by the how firm the candidate's belief is in the 5 behaviors. The level of manifestation is given by the degree of repetition in applying the behaviors. For example, a reduced level of maturity means that the candidate will always remain true to his own personal beliefs when interpreting situations that define the competency. In the case of manifestation of the behaviors that define the competency, a general level means that the candidate always applies the behaviors, showing a high degree of predictability.

Development is measured by the ability of the candidate to better his score for the 5 behaviors.

Personal effect is measured by asking the candidate to choose between two opposing characteristics for 5 items. The scale of the items is also 1 to 10. The items are defined by the following pairs of characteristics:

- ("sociable", "efficient");
- ("selective", "natural");
- ("direct", "diplomatic");
- ("objective", "empathic");
- ("freedom", "control").

Scoring high on personal effect (choosing close to the right side of each pair) is interpreted as follows:

- The candidate is oriented towards a high level of efficiency of relationships;
- The candidate is acting in a natural way in any type of relationship without being influenced by subjective assessments;

- The candidate does not build a large number of relationships;
- The candidate focuses on understanding the emotions of others;
- The candidate aims to gain control in a relationship.

5. CONCLUSIONS

Soft skills are important because teams of employees that work well together produce better and more effective solutions and more satisfied customers. For example, a senior manager of a very important company was quoted in a major business publication saying: “We have made a concerted effort to hire IS (information services) people with both hard technical skills and the softer people skills. It has a direct impact on customer satisfaction. A customer will be much more patient if the IS person is personable and patient with him. Our customers want to feel that IS is not treating them like ‘just another dumb user’.” [3]

Our proposed methodology and application increases the efficiency of the recruiting process by reducing the required time to evaluate and filter candidates. Also, by combining hard skills and soft skills data visually, the selection process is greatly simplified for decision makers and recruiting managers.

Companies can benefit by not only evaluating candidates but also employees. Results of evaluations can be used to better build development plans for employees, see their overall potential and get a good idea of what position their soft skills are better suited for.

By grouping recruiting phases into projects managers can better handle large pools of candidates with their associated evaluations and overall reports.

On the other hand, the application is also created to help candidates better develop their soft skills by self-evaluations, fine-tuned development plans and by offering them a rich analysis and overview of the recruiting market and what companies are looking for. By evaluating trends in the soft skills area a candidate can have a better picture of where his skills are needed most or what skills are sought after by managers of his domain.

Soft skills evaluation is traditionally an interview process. This means that large pools of candidates are hard to evaluate and require a great deal of resources on the part of the evaluator. By using our online tool, candidates can be evaluated in batches and more easily filtered out. This way, only the most relevant candidates can be interviewed in person, making the whole recruiting process waste a lot less time and resources.

By leveraging a well-defined methodology and the power of the online environment the recruiting business can be upgraded to better suit the needs of today’s businesses and work force market.

6. ACKNOWLEDGEMENTS

The article has been supported by scientific research within the project entitled “PRACTICAL SCHOOL: Innovation in Higher Education and Success on the Labour Market”, project identified as POSDRU/156/1.2/G/132920. The project is co-financed by the European Social Fund through the Sectorial Operational Programme for Human Resources Development 2007-2013. Investing in people!

Special thank you to two students from the Faculty of Computer Science for Business Management (Romanian-American University) that helped with the research presented in this paper: Herlea Serban Radu Cristian and Butoiu Cristi Edward.

7. REFERENCES

- [1] Caudron, S., 1999. The Hard Case For Soft Skills. *Workforce*, Vol. 78, No. 7, Pp. 60–66
- [2] Mitchell, G. W., Skinner, L. B. and White, B. J., 2010, Essential Soft Skills For Success In The Twenty-First Century Workforce As Perceived By Business Educators. *Delta Pi Epsilon*, Vol. 52, No. 1, Pp. 43–53
- [3] Technical Professions Increasingly Require A Broader Skill Set, But Career And Technical Educators Can Help Their Students Add Soft Skills To Their Hardcore Technical Skills. [Online]. Available: [Http://Files.Eric.Ed.Gov/Fulltext/Ej764824.Pdf](http://Files.Eric.Ed.Gov/Fulltext/Ej764824.Pdf). [Accessed: 28-Feb-2014].
- [4] Joseph, D., Ang, S., Chang, R. H. L., and Slaughter, S. A., 2010. Practical Intelligence In IT. *Commun. Acm*, Vol. 53, No. 2, P. 149
- [5] Schulz, B., 2008. The Importance Of Soft Skills: Education Beyond Academic Knowledge. *Nawa J. Lang. Commun.*, Vol. 2, Pp. 146–155
- [6] Grugulis, I., Vincent, S., 2009. Whose Skill Is It Anyway?: ‘Soft’ Skills And Polarization. *Work. Employ. Soc.*, Vol. 23, No. 4, Pp. 597–615
- [7] Bailey, J., Mitchell, R. B., 2007. Industry Perceptions Of The Competencies Needed By Computer Programmers: Technical, Business, And Soft Skills. *J. Comput. Inf. Syst.*, Vol. 47, No. 2, Pp. 28–33
- [8] Andrews, J., Higson, H., 2008. Graduate Employability, ‘Soft Skills’ Versus ‘Hard’ Business Knowledge: A European Study. *High. Educ. Eur.*, Vol. 33, No. 4, Pp. 411–422
- [9] Heckman, J. J., Kautz, T., 2012. Hard Evidence On Soft Skills. *Labour Econ.*, Vol. 19, No. 4, Pp. 451–464
- [10] When being soft can be as powerful as being hard - How soft skills can put your career at an advantage. [Online]. Available: [http://www.adecco-asia.com/Singapore/asset/pdf/candidates_personaldev/The %20 Importance %20 of %20 Soft %20 Skills.pdf](http://www.adecco-asia.com/Singapore/asset/pdf/candidates_personaldev/The%20Importance%20of%20Soft%20Skills.pdf). [Accessed: 25-Mar-2014]
- [11] The Growing Importance of Soft Skills in the Workplace. [Online]. Available: <http://www.torchgroup.com/TorchLiteJanuary2013.cfm>. [Accessed: 25-Mar-2014]
- [12] Markus, L. H., Cooper-Thomas, H. D., & Allpress, K. N., 2005. Confounded by Competencies? An Evaluation of the Evolution and Use of Competency Models. *New Zealand Journal of Psychology*, 34(2), 117–127.