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Learning framework using social media networks

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Abstract

Social media networks are being used heavily by people from different social, economic, and educational backgrounds all over the world. University, college, and high-school students constitute a main faction of social media network users. In this study, a framework for student learning using social media network environment is developed. The framework is founded in the self-determination theory (SDT). The self-determination theory is one of the important theories of motivation and personality. Its focus is geared towards both intrinsic and extrinsic motivation issues. It addresses three universal innate and psychological needs: competence, autonomy, and psychological relatedness. A person's social environment necessitates caring for these three needs in order for the person to actualize their potential, function and grow optimally. In addition to creating the social environment that caters for students' psychological needs, for a new framework of learning using social media to be successfully adopted by students it needs to address their cognitive, emotional and contextual interests. Towards this end, this study explores and finds the conceptual grounds of a social media learning framework.

Keywords: Social media network, learning, self-determination theory, motivation, competence, autonomy, relatedness.

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1. Introduction

Social media networks have gained tremendous popularity in the last few years all over the world. This is evidenced by the number of users of those networks. For example, the number of active users of Facebook as of November 2015 is reported to be 1,150 million; while Instagram hosts 400 million active users, and Twitter hosts 316 million such users (Statistica, 2016). In addition, 62% of the entire American adult population uses Facebook; or, 72% of the online American adult population. Also, 82% of online American adults ages 18 to 29 use Facebook (Pewinternet, 2016). Those statistics indicate the magnitude of social media network use and their prevalence today. Of interest to this study is that prevalence among college students. Most college students are using some social media network daily (70% according to Pewinternet). Given the extent of use of social media networks, a learning framework that exploits those networks and capitalizes on the environment their use may create becomes needed.

Several leading and fundamental learning theories across many paradigms (behaviorism, cognitivism, constructivism, humanism, etc.) have long been developed, applied, extended, or used. Among those theories is the self-determination theory (SDT). Developed by Deci and Ryan (1985a; b), SDT has been applied in numerous contexts, namely, education. One of the main tenants of SDT is the social environment in which behavior takes place and the effect of that environment on the motivation to perform the behavior. In this respect, SDT becomes an optimal grounding theory for a learning framework using social media networks.

In order to develop an SDT grounded learning framework using social media networks, the existing body of literature on SDT, motivation, and education was examined. An evaluation of pertinent literature is presented in the following section.

2. The Self-Determination Theory

The self-determination theory is a widely tested and applied theory of motivation in social contexts. Grounded in the social psychology field, it was empirically derived centering on both intrinsic and extrinsic motivation. In social psychology theories, the underlying focus is the social environment and its effect on attitudes, behavior, values, and motivation. The SDT does not differ from its predecessors in that respect. However, it diverges from the mainstream that is often referred to as “the standard social science model” (Tooby & Cosmides, 1992). While in the standard model, learning or acquiring the aforementioned attitudes, behavior, values, and motivation is considered to be

molded by the social environment, it is considered differently through the SDT (Deci & Ryan, 2012). The “SDT assumes that the human organism is evolved to be inherently active, intrinsically motivated, and oriented toward developing naturally through integrative processes. These qualities need not be learned; they are inherent in human nature.” [p.417]. This, however, does not mean that those qualities do not develop, or become affected by the social environment, for they do, and they play a major role in learning according to SDT. In addition, for a person to grow optimally, three universal psychological needs are identified in SDT to be essential for such development. Those needs are: competence, autonomy, and psychological relatedness. Whether the social environment a person is part of, supports or thwarts those essential psychological needs, that person’s development will be enhanced or undermined, respectively.

As for motivation, or the inspiration to perform a certain act, the theory not only differentiates between intrinsic and extrinsic motivation, it also discerns between different types of extrinsic motivation. Intrinsic motivation refers to the impetus to perform an act because it is inherently enjoyable. Extrinsic motivation, on the other hand, refers to the inspiration to perform an act because it leads to an enjoyable outcome. In that respect, there rises a difference between the level of motivation that is not to be confused with the nature or focus of that motivation. People may have the same level of motivation, but the reasons that give rise to act are very different. Understanding those reasons and differences by practitioners and researchers becomes essential in their exploration of peoples’ behavior (Ryan & Deci, 2000). The classic motivation literature (DeCharms, 1968) often highlights the more

desirable, by scientists and educators alike, intrinsic motivation as opposed to its counterpart extrinsic motivation. The SDT however, delves into the latter, discerning its types. Four types are identified on a continuum, namely, external regulation, introjection, identification, and integration. While people might perform some acts that are extrinsically motivated with resentment, they might also perform those same acts with a different attitude, that of willingness, the higher up they move on the continuum. The key factor for that willingness, or acceptance of the value of the act is having the person validate the extrinsic goal, therefore, adopting it voluntarily. Ultimately the person identifies with that goal and integrates it as his/her own. Thus, based on SDT, motivating a person to voluntarily choose to perform an initially extrinsically driven act requires understanding the different types of extrinsic motivation. Figure 1 shows the different types of motivation in SDT according to their regulatory styles (Ryan & Deci, 2000). In addition, it shows the internal processes people associate with each one. It also shows peoples' perceptions of the locus (self vs external) of causality under each type.

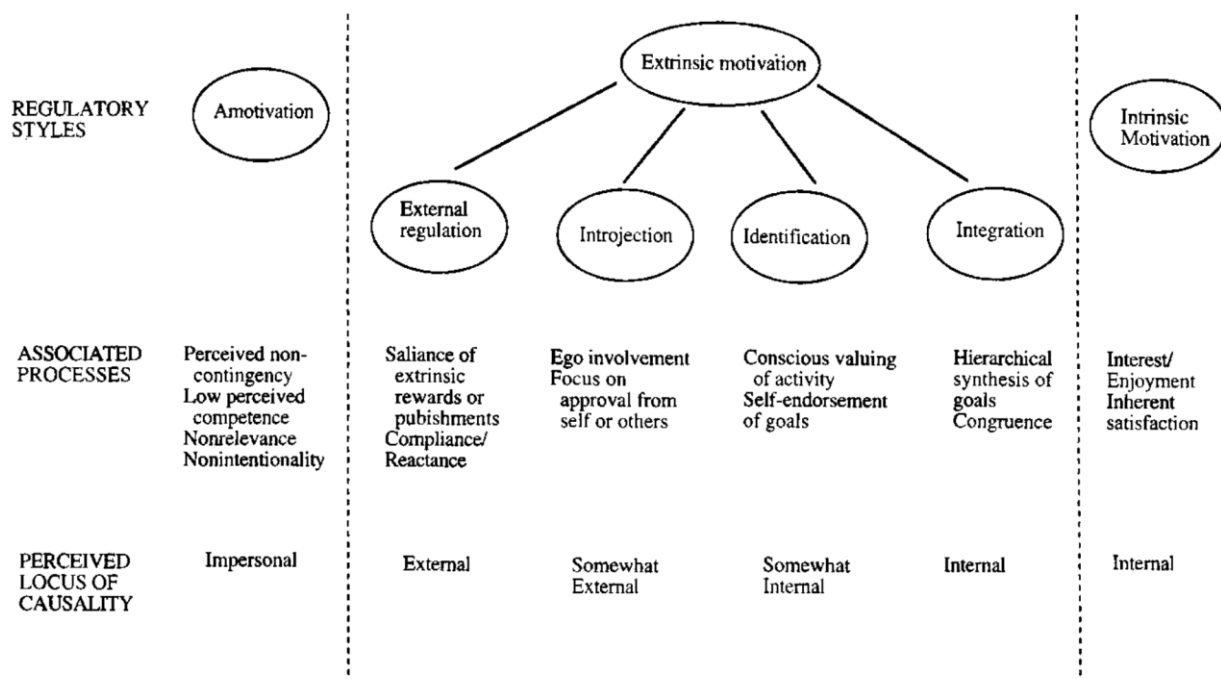


Figure 1. SDT Human Motivation Taxonomy

3. SDT Application Studies

The SDT was tested and applied in different contexts, notably in behavior change, work motivation, prosocial behavior, and education. Educators and researchers studied autonomy, perceived competence, and motivation in the classroom as they related to learning (Guay, Chanal, Ratelle, Marsh, Larose & Boivin, 2010). This section highlights some of the most pertinent published work.

Several studies tested the link between autonomy and extrinsic motivation. The findings of Grolnick and Ryan (1987) supported the positive relationship between the two: the more autonomous the students felt, the more they internalized and adopted the extrinsic motivation for completing the task, and the better they felt. In another study Reeve, Jang, Hardre and Omura (2002) researchers found that greater autonomy of students was related to higher conceptual understanding on their part. Other studies found a link between autonomy and engagement in learning (Benware & Deci, 1984). The greater the students sense of autonomy is, the higher their engagement will be in their learning experience.

In a study to explore motivation in the medical education field, researchers studied the relationship between the quality of motivation and its effect on performance (Kusurkar et.al; 2012). Higher relative autonomous motivation was found to positively affect good study strategy and study effort. It was also found to positively affect medical students' performance in terms of higher grade point averages.

In another study, researchers evaluated published laboratory experiments and field work on learning, motivation, and SDT psychological needs (Deci, Ryan & Williams, 1996). Study findings supported the positive relationship between internalized extrinsic motivation and high quality learning and positive adjustment of students. In addition, they found that internalizing extrinsic motivation is enabled by social environments that enhance the needs for competence, autonomy, and relatedness.

4. Framework Development

After reviewing and evaluating the published work on motivation, SDT, and learning, the following became evident. First, although intrinsic motivation is a stronger impetus for action, and engagement, extrinsic motivation can lead to similar outcome if internalized. This is especially of importance in education since, realistically for most students, the driving force for learning is extrinsic. The same is true for the amotivation state. Classroom activities and interactions have as one of their implicit goals moving such students, at least with an external locus of causality, to act. At best, they would lead students to voluntarily perform the act by adopting and integrating it as their own. Thus, for any learning framework to be developed it has to be based on extrinsic motivation with the aim of internalizing it.

In addition, for internalization and adoption of externally initiated goals to occur, the social environment supporting the person has to enhance the basic psychological needs of competence, autonomy, and relatedness. This also is of importance in education because classrooms, traditional and virtual, constitute that social environment. If they are envisioned and constructed as enhancers of those needs, students will internalize and adopt extrinsic goals (homework, projects, studying, class participation, etc.) as their own. They will value their learning experience and fully engage in it. In turn, this will lead to better learning and well-being.

While many learning and education related studies applied SDT and examined all or part of its constructs, none of those studies were done in a social media network context. Social media networks provide an optimal environment for enhancing the psychological needs for competence, autonomy, and relatedness. Competence, or students' perception of being able to accomplish a certain task successfully, can be enhanced in a social media network environment. The availability of the teacher's or other students' help, an embedded "Help" function, or quick links to online resources can be major contributors to students' perception of competence. Also, the availability of prompt and specific feedback during the course of action, with the purpose of encouraging, rectifying, or fine tuning performance is another contributor to students' perception of competence. As for autonomy, or the perception of self-direction, social media environment can be a key facilitator of that need. In a traditional classroom, the lecture or the activities flow in one direction with no choice available for student. While in a social media context, students could be in control of what to perform (viewing lectures, solving problems, consulting online resources, etc.) and in which order. The psychological need for relatedness refers to the feeling of belonging, being a part of a group, eventually working towards common goals. Social media environment provides an excellent support for this need. While in-class interaction is limited to scheduled class time, social media allows for more interaction. Social media networks are formed around "groups" of people being "friends" or "followers" with asynchronous communication and interaction. Students can choose to add friends or "unfriend" existing ones. They can also choose the level of engagement for a certain post or activity ranging from mere viewing, to "liking", to commenting and engaging in discussions. All of that communication is saved and can be retrieved later in its details, as opposed to the in-person in-class communication.

5. Suggested Framework

Based on the above evaluation of previous knowledge, the following framework for learning using social media networks is developed and presented. A visual representation is depicted in Figure 2 below.

While traditional classrooms are still the main venue for the learning experience, a social media network supported classroom may prove more conducive to improved learning. For the supporting social media network environment to lead to better performance, educators need to plan and carry out activities through it that enhance students' perception of competence. The activities need to be challenging enough. The teachers need to be reasonably available on the network, outside of classroom time to answer students' concerns and provide them with help and guidance. In addition, the sense of students' autonomy needs to be supported through the different activities. This can be accomplished by providing students with different choices. While the broad outlines of the class learning outcome and objectives are still controlled by the educators, students can be provided with choices on how and when to achieve those objectives. Also, teachers need to encourage students' interaction with each other on the social media network. The activities need to be planned around sustainable interaction between the group (class) members. In addition, improved learning is theorized to demonstrate through better performance. The social media network environment created or used by educators needs to enhance better performance showcasing. Teachers need to closely monitor students' performance, a task made more efficient on social media network. While some interactions, engagement, or performance might not get recorded in the classroom, they are all saved for anytime retrieval and evaluation by teachers. Showcasing improved performance will lead, at least to the concerned student satisfaction, and at best contributes to their integration of the learning goal. In that case, internalization of the learning goal will lead to even better performance. Finally, the choice of the social media network to be used is marginal. Educators can choose from among the different available networks (or develop the school's own) provided that the chosen environment and activities planned and carried out within that environment support the three basic psychological needs of competence, autonomy, and relatedness.

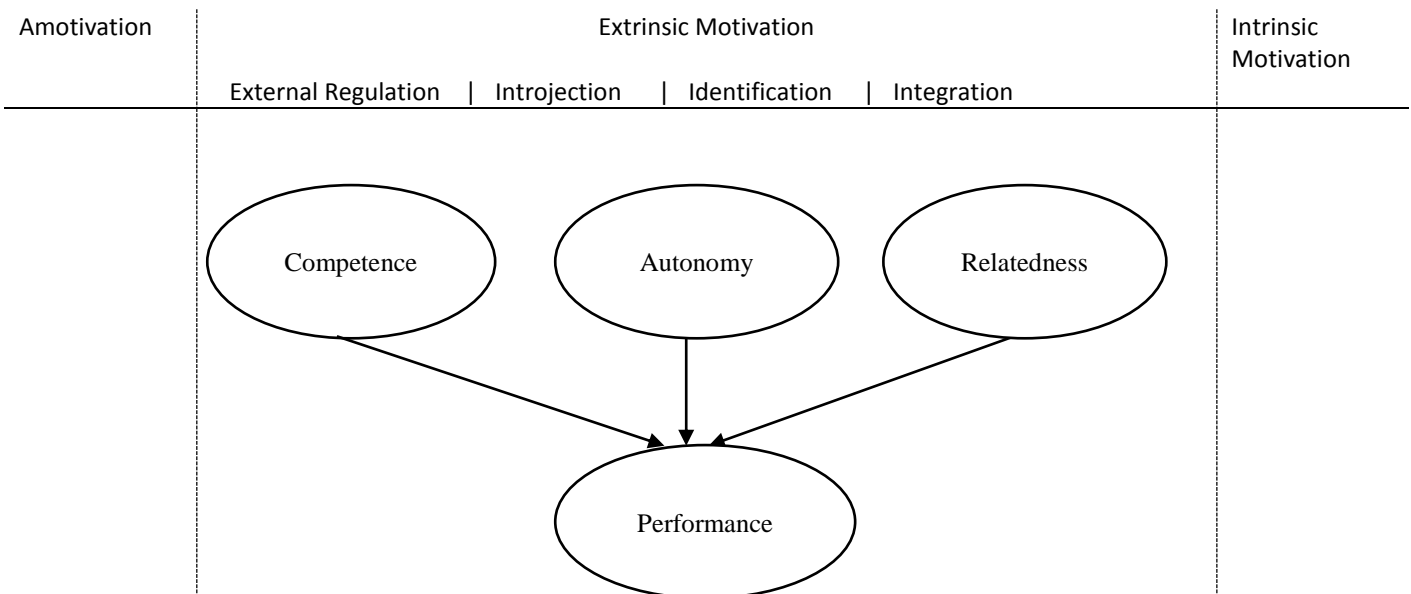


Figure 2. A Visual Representation of a Social Media Network Learning Framework Based on SDT

6. Conclusion

In this study, a framework for learning using social media network environments based on SDT was theoretically developed and presented. Such an environment if adopted by educators is theorized to help students integrate learning goals and objectives as their own. Internalizing initially extrinsic learning goals will lead to improved learning, exhibited through improved performance.

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