Restless Millennials in Higher Education - A New Perspective on Knowledge Management and Its Dissemination Using IT in Academia

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Abstract. Seventy millennial students answered a survey on attitudes towards leadership and their desired approach to higher education. What is their perspective on knowledge management and dissemination in academia? Some romanticizing may be beneficial, but the great majority of students want to be enlightened and well-prepared for that which they will encounter in business markets. Three interviews with seasoned executives were also performed, to establish a contrast and see other perspectives. We conclude that to become a great corporate leader may in fact be dependent on your DNA and personality make-up, but this is not what is thought to be true, by the majority of the respondents in the survey. Motivation took the most votes as being fundamental for success, a positive sign and indicative of a hard working millennial generation, contrary to previous research findings. IT is also a precious partner in class, in particular Padlet.com, Moodle, the online News Forum, as well as the challenge to create original videos about course content.

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1 Introduction – Setting the Scene

The younger adult generation is of interest, for example, to marketing professionals who want to know what the future holds for us, and how consumption will possibly change, over the next ten years or so, as this group gains in purchasing power. This younger group has been named the millennials. "'Millennials' are currently the youngest generation of independent consumers [...] born in or after 1982 [...] comfortable with disrupting the norm. Being the first generation to have grown up in the era of 'internet everywhere', millennials are highly connected, technologically advanced and globally conscious and far more open to trying out new products and concepts than their parents or grandparents ever were" [1]. This orientation leads to a welcomed use of information

technology (IT) in class, for better knowledge management – Padlet.com (a digital wall, for collaboration and knowledge sharing in class), Moodle (for the posting of class content and material), and the available online News Forum (to challenge students and give them homework). By resorting to technology, distance learning is possible, and students' attention is better captured in class. Furthermore, by requiring that students deliver professionally edited videos as course assignments, interest is heightened and the challenge embraced.

According to [2], "the workplace has become a psychological battlefield and the millennials have the upper hand, because they are tech savvy, with every gadget imaginable almost becoming an extension of their bodies. They multitask, talk, walk, listen and type, and text. And their priorities are simple: they come first." Knowing that millennials communicate in different ways (using the Internet and online social media and networks), have different opinion leaders (popular bloggers, or people like them, not necessarily rich and famous people), and tend to read less text while focusing more on images, photos and videos, in the age of YouTube [3, 4], how should we teach them in the classroom? Romanticizing means to "make (something) seem better or more appealing than it really is" [5]. Enlightening, on the other hand, means to "give (someone) greater knowledge and understanding about a subject or situation" [6]. Which approach, with millennials, should academia take - that of enlightenment or of romanticism? In practical degrees such as management, industrial engineering and management, and tourism, and relative to the material covered? All of these professions involve, for the most part, working in companies, surrounded by colleagues, serving customers, and competing with rivals. Should students be told candidly - meaning truthfully and straightforwardly [7] – what the real world is like? Or should lecturers romanticize?

On the other hand, if the predominant leadership philosophy – leaders supposedly lead organizations in the right direction, towards its objectives [8] – in Portugal, is autocratic – whereby a leader communicates to his or her employees what they have to do and expects to be obeyed, free of issues and problems [8] – what should be taught at university? How relevant is teaching about authentic leadership – or charismatic, transformational leadership, whereby the leader is extraordinary, heroic even [9] – if one will work, in all probability, in an autocratic-type enterprise?

This exploratory study involved the interviewing of several executives and the surveying of 70 students. The main research question was how candid should lecturers be in higher education?

The results show that a degree of romanticizing is wanted, by some students, and even by executives, even though one might have concluded that all students in higher education simply seek enlightenment. Even some respondents who chose enlightenment over romanticism then made comments as to the need for romanticizing.

Another question sought to analyze views on success. Motivation is seen to be the most important ingredient to success, followed by being street savvy (gained with experience). Surprisingly, the students' higher education institution was not chosen at all as the major ingredient to success, and intelligence (an innate trait, which you are born with) was only chosen four times (including by an executive). This may show a tendency

to believe that anyone can be successful, with the right work ethic, and the right experience, which is very positive as millennials seek to take over from the baby boomers who are now approaching sixty years of age [2].

Of note is that not much research has been performed about how to teach millennials, what they expect from higher education, and what they think of leadership and ingredients to success. On the other hand, this is an important group to study, as "they are the most threatening and exciting generation since the baby boomers brought about social revolution [...]. The Industrial Revolution made individuals far more powerful—they could move to a city, start a business, read and form organizations. The information revolution has further empowered individuals by handing them the technology to compete against huge organizations: hackers vs. corporations, bloggers vs. newspapers, terrorists vs. nation-states, YouTube directors vs. studios, app-makers vs. entire industries. Millennials don't need us. That's why we're scared of them" [10]. It is in this context that using technology in class is so successful (Fig. 1). One Padlet.com entry reads: "Strategy is needed even if the strategy is spontaneity" (student André). This is testimony to a new and restless generation - the millennial generation.



Fig. 1. A screen shot of a Padlet.com wall/discussion had during class

2 Background

How are we training and developing our students [mostly currently millennials] in higher education? How candid should we be about what awaits them in the marketplace? Should we try and maintain a certain naiveté for as long as possible, and postpone the harsh reality of professional markets? Or should we, in alternative, supply information about

the "real world"? In business, in particular, the aim is to take market share away from competitors, and this may even mean sending competitors out of business – much as Apple's iPhone success spelled disaster for Nokia and BlackBerry, market leaders in the cell phone market before the first iPhone [smartphone] was launched, in 2007. Do students want to be made very aware of this reality?

A lot has been written on emotional intelligence, which includes the concept of motivation: "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope" [11]. The importance of these themes is undeniable. [12] also contend that "successfully managing emotions means that our conduct is guided by both our thought and our feelings [...] decision making cannot succeed in the absence of emotion". This is very relevant, the emphasis on emotions, but perhaps it is still not tackled as it should be, in academia, though studies and courses on the development of soft skills do now abound. [13], on the other hand, is very direct in stating that "for the most part, education has been quite conservative." [13] continues, "I discern two legitimate reasons for undertaking new educational practices. The first reason is that current practices are not actually working [...]. The second reason is that conditions in the world are changing significantly. Consequent upon these changes, certain goals, capacities, and practices might no longer be indicated, or might even come to be seen as counterproductive". In the age of Google, for example, online access in class means that Google queries should be used quite often, as students can relate to these, more so than reading from a textbook, with an excess of text.

Competition is at its highest, in many industries, and though we may accept that competition has always existed, the Internet and connectedness between consumers and firms has seen a surge in rivalry in a number of sectors. What used to hold true as being acceptable has changed and firms are willing to make new rules of competition which students should be aware of – before going into "battle". However, the battle for students' attention also warrants new approaches in class.

A lot has been written about how leaders must communicate, for example. How much do leaders really communicate though? At Apple, currently one of the most valuable brands worldwide, renowned for its innovation, communication is kept to a minimum, on a "need-to-know" basis [14]. This is not, however, what we are teaching young graduates, who oftentimes come to work, for the first time, expecting training and aid in their tasks, only to become disillusioned soon after, when they realize the drudgery of their daily work routines, with an almost total absence of "virtuous leadership" [15], in some environments.

This article, based on personal interviews, and on a survey of students' opinions on higher education, and what it should involve, intends to build an awareness for the need for change in training and development in academia – towards a more "real" approach, especially in business studies, but also based on technology. Machiavelli, a number of centuries ago, wrote a treatise about what human nature is really about, and how princes should, in view of this, govern their nations [16]. Can we say that human nature has changed since then? If it has, it is in the turn towards technology.

The article seeks to contribute to the discussion of approaches to higher education. Should education be more inclined to enlighten, or more inclined to romanticize? If one should choose to follow the former, perhaps more efficient and effective managers and leaders might result (with consequences for improved quality of life ensuing). On the other hand, if the latter is followed, perhaps the workplace may become more humane – and we all know that this is of paramount importance. How course content is delivered and assimilated is also important though. Getting students to create videos takes many more hours than simply them giving a presentation in class, as students recognize that technology "immortalizes" and endures over time. So, as a consequence, much care will be taken and new competences gained.

We teach students to plan, on management degrees, but often forget to tell them to beware of market difficulties which are not evident in the plans they create. Powerful [monopolistic] firms will protect their territory and markets at times quite ruthlessly. On the subject of planning students wrote, on Padlet.com, that the importance of planning is often overlooked in firms, with a preference for a focus on execution (student João) – but planning is of utmost importance, as powerful management consultancies exemplify (student Francisco).

Intuition and "gut feel" can be as important or more important than formal planning [17]. But how do you teach that? Are there courses in higher education on how to improve your intuition? On how to improve your common sense (which may not be so common)? Being born with certain traits, such as being more reflective before acting, will be important. Perhaps formal education can only, to a degree, improve performance. However, being aware of what is necessary, through academic internships at firms, and through being involved in firm decision-making, early on in one's career, is a growing trend in education, and may have an impact.

Academia is an industry and it will need to adapt in order to keep its stakeholders happy. This may mean that success in academia will be linked to the employability of its members after completing courses (this is, indeed, already a metric sought out, by undergraduate and graduate students alike, around the world). This brings us back to the efficiency and effectiveness issue. Do we not need to prepare our wards for that which they will encounter?

Colleagues in companies withhold information from each other, to attain positions of power. In the workplace corridors are where a number of promotions are often decided, not during formal evaluation processes. Firms will lie about having made a product, in an effort to not lose market share – being and coming across as innovative are, after all, what fickle individuals want – a company able to continuously churn out new market offerings to keep them satisfied. People who are stuck in routines need constant change around them to help them cope. Reality is often too hard a burden to carry.

In academia we have to use IT and teach people how to cope with life's difficulties. But we also have to teach people how to create an atmosphere of change. In such an atmosphere, blue oceans may exist [18]. Where the competition is irrelevant. Where markets are entirely new. Where sharks have not yet bloodied the water. Perhaps this is what needs to be made evident. To students. So that they may seek that outcome. After comprehending what the alternative will entail – the bloodied waters of red ocean strategies.

3 Methodology

3.1 Study 1 – An Exploratory Survey

On 14-03-2016, an exploratory survey was undertaken, involving students (millennials, born between 1987 and 1996) at the University of Aveiro, in Portugal. The survey was about how candid should lecturers be in higher education? - Concerning issues which will affect students later on in life, namely when they start to work. Should lecturers seek to romanticize or to enlighten students about the harsh world which awaits them? The survey had eleven questions. There was a total of 70 answers to the survey, by students, studying management, tourism, and industrial engineering and management. The survey was not anonymous, the students stated their names, dates-of-birth, degrees, and nationalities - some students were on Erasmus exchanges, from Turkey, Greece, Italy and Latvia, for example, but this is not seen as a problem as "each country's millennials are different, but because of globalization, social media, the exporting of Western culture and the speed of change, millennials worldwide are more similar to one another than to older generations within their nations" [10]. The author explained in class, quite extensively, the meaning of the questions. Some students asked questions for clarification. The author is satisfied that the questions were understood. As the questions have no wrong or right answer, but instead reveal a perspective of those answering, an absence of bias is expected, in the answers. The survey was enriched by space for qualitative comments by the respondents.

It is relevant to also say that before answering the questions, the students were presented, at the beginning of the survey, with seven different real life situations. The subjects were: rivalry in global markets; how breaking into new markets where there is a very strong and dominant player can be very difficult; planning and the competition; leadership and communication; teamwork at a major consultancy firm; relationship cultures (Portugal) vs. task cultures (USA); and customers.

The lecture in itself, according to the students, was found to be very interesting. It must be noted that the students took the exercise very seriously, a number of them in particular taking a long time to answer the survey, giving lengthy comments on a number of items (besides "yes" and "no" type-answers, space for comments was provided in the survey). The survey session thus took between 40 min and 45 min to complete.

3.2 Study 2 – Exploratory Interviews

In this exploratory research effort, three seasoned executives were interviewed. The research sought to determine how important was higher education, their innate intelligence, their motivation level, and their experience to their success? The survey questions were also posed in the interviews, to ascertain the views of executives in the real world versus those of students.

4 Data Analysis – Survey

One might think that the objective of going to university is to simply learn about relevant issues and to be enlightened. Though the survey revealed that the great majority of students surveyed (66 out of 70) wanted to be enlightened – "to diminish the impact and consequently the difficulties upon entering the work market" (Portuguese student André Carvalho, studying management) – there were some students who opted for the romanticizing aspect of education (4 out of 70, though half of these actually advocated both romanticizing and enlightening, in academia; let it be noted that several other students made comments, however, stating the need for romanticizing, despite having chosen the enlightenment option), to keep motivation levels high. One student answered to question 9 (should education be more inclined to enlighten, or more inclined to romanticize?) – "Both [romanticize and enlighten]. Students should be inspired, but, at the same time, prepared for what's coming. A combination is the best option." (Portuguese student Marta Camoesas, studying Industrial Engineering and Management). The issue is, the student continued (in question 10), "I think that more genuine and naïve audiences should not be totally scared." Another student from Latvia (Paula Beináre) stated that "students should be maintained a little naïve in order to keep a positive impression about business in real life". So, romanticizing may be a very important part of teaching, for motivational purposes. Another student stated that enlightening "makes people stronger, but there has to be a balance with regards to the personality of people, to romanticize the world with the perceived reality." (Portuguese student Luís Marques, studying Industrial Engineering and Management). Yet another student stated that "we should enlighten students but always try to make them believe that they can change the things that are not right." (Portuguese student Cristiana Teixeira, studying Industrial Engineering and Management). Finally, on the subject of enlightening or romanticizing, João Pedro Costa, a Portuguese Master's in Management student, stated that by enlightening, we might create capable leaders, which might lead to an unexpected romanticizing of affairs. In essence, romanticizing was not too far from a number of students' minds.

The students were also asked (question 11) what success is more dependent on, and had to choose one of four options (motivation levels; higher education institution you go to; intelligence which you are born with; being "street savvy" which is acquired with experience). Of note is that the higher education institution you go to was not chosen at all. The intelligence you are born with was only chosen by three students, in total. Motivation levels were chosen the most (51 times out of 69 possible). This is seen to be positive, that people consider they can change for the better if they try hard enough (thus a very satisfactory result). Being "street savvy", which is acquired with experience, was deemed the most important factor by a total of 16 people. Again, this shows quite positively that students possibly believe that they can become street savvy, with the proper acquired experience. Note that one student answered both motivation and being street savvy to this question (success depends on these two factors), thus having indicated two options instead of only one (an invalid answer).

As for the teaching of leadership, even if the predominant form of leadership in [Portuguese] society is autocratic (the lecture and evidence provided pointed in this direction), many students still prefer to learn about authentic leadership (presented as a

North American type of leadership) (21 students out of 70) or even about both (the most popular answer - 29 students). This may lead us to conclude that becoming more prepared for the "real" workplace, its harsh realities, simply becoming enlightened (17 students prefer to talk about reality and autocratic leadership – Italian student Riccardo Donnari said in particular that what interests him is autocratic leadership because of his country and what he is used to), is still considered by some to be less preferable to being taught what is right in theory. This can also be explained, however, in part, by the increased mobility of workers and the possibility of, in future, working elsewhere, outside Portugal: "Even though we are in Portugal and it is very important to have a notion of the work market in our country, the truth is that the big markets are abroad and even in the USA so it is also important and even enriching to speak about their market." (Portuguese student Sofia Freitas, studying Tourism). Sara Viola, another Portuguese student doing a degree in Tourism, stated that "[we should study] both. There is a need for a balance. To be honest and transparent is always important and I think we shouldn't change ourselves in order to keep our job. However, we shouldn't be "stupid" and let other people step on us. Bottom line is: we need to stay true to our values and keep our integrity." There was a general understanding, however, that culture has a strong influence on management and a Portuguese student, studying management, Juliana Rocha stated that "we should understand the different visions of leadership. What is real in one culture, is fantasy in another". Note that there were three invalid (ambiguous) answers to this question.

One Portuguese student, João Freitas, studying management, stated, answering question 2 (should management students at university be maintained somewhat naïve and unaware of what the real world is like?), that "to finish a bachelor's degree only knowing what was lectured is the same as knowing nothing. A great percentage of our courses in the bachelor's degree in management are about "memorizing and writing" and with this there is little space for learning". Some discontent is suggested with the current curricula and teaching methods, as [13] stated above.

5 Data Analysis – Interviews

5.1 Interview 1 – Senior Executive 1 (SE1)

Senior Executive 1 (SE1), interviewed twice, in 2016, the father of two children, studied mechanical engineering at university, at FEUP, an education which SE1 has put into practice in industry. With extensive executive experience, in Portugal and abroad, as a CEO and as a Director responsible for production (involving a number of factories), in the automotive industry, SE1 has a specific perspective on a number of issues, namely on leadership and as regards knowledge dissemination needs in academia. Firstly, great leaders are mainly born, not made, according to SE1. Characteristics we are born with have a great influence on the way we lead, more so than what we learn (brilliant negotiators, for example, are seen to be born with this ability). This may be seen in the vast differences between one's children, despite them having the same parents, living in the same place, and going to the same school and having the same teachers. SE1's current boss, for example, does not have a higher education degree, but reveals great ease with

analytical business tasks (for example, involving financial statements) despite this apparent education set-back. SE1 is actually confident in saying that despite not having a university diploma that his boss CEO would fare much better at specific analyses than university graduates from the finest universities worldwide. On the other hand, a university education must be as practical and enlightening as possible. Management studies graduates need to finish their undergraduate degrees with practical, hands-on experience, in firms, much as physicians do, with real-life internships. It is crucial that academia prepare students and disseminate real knowledge and experience, as early as possible. One's motivation is also important, in so far as motivated individuals can learn how to deal with certain situations, to their benefit, and the benefit of the enterprise. There are, however, no guarantees, or formulas, for success.

5.2 Interview 2 – Senior Executive 2 (SE2)

Senior Executive 2 (SE2) is a Portuguese mother of four children, with a degree in management information processing with computers (Portucalense University, Portugal). SE2 was born in 1967, and is a senior executive and co-owner of a familyowned business (in the wood distribution industry). SE2 was interviewed on the 15th of March 2016, and when asked question 11 of the survey, in particular, about what success is more dependent on, her answer was that motivation is the most important factor, but being street savvy is also very important (but requires motivation, which makes motivation more important). Though wanting to know as soon as possible what the real world is like (the harsh realities of business markets, firm rivalry, and internal politics – question 1), SE2, at university, would prefer that her lecturers romanticize rather than enlighten in too much of a down-to-earth fashion. Romanticizing (on a positive note, for the better) is more important, as an approach to higher education (question 9). Finding out about the realities of markets and human beings is very important but is an exercise which each one has to discover for him- or herself, according to this executive. On the other hand, though, learning about autocratic leadership is the most important, in Portugal, rather than learning about authentic leadership (question 3). The rationale behind this perspective is that if nobody clearly leads and tells ["mandar", in Portuguese] people what to do, nothing tends to happen in Portugal. Portuguese employees are excellent, amongst the best in the world, if given clear instructions and a clear direction for their work, especially in more traditional industries, where there is not much room for creativity and where innovation is not the basis for competitiveness.

5.3 Interview 3 – Senior Executive 3 (SE3)

Senior Executive 3 (SE3), interviewed in early 2016, a father of two children, born in 1981, is an asset manager, with a degree in economics (Catholic University of Porto, Portugal), who has his own company, and though being Portuguese has worked abroad, including mainly in Geneva, Switzerland. SE3 is of the opinion that students need to be taught about the harsh realities of business markets as soon as possible and should be taught about leadership practices in the USA and the UK, which are more liberal, the reason for Portugal registering a more autocratic leadership style being that there is less

mobility and people cannot change jobs so easily, in Portugal. University degrees should not be judged solely on employability as, for example, in his case, continuous education is important and can involve the improving of skills and not necessarily wanting a better job. So, the judging of what makes a degree or course a success will depend on the level of the course, in higher education. In terms of firm practices, the bigger the company the more likely one will encounter office politics, in relation to power games and promotions, which are also based on relationships, even in the USA, according to SE3. It is all important to enlighten, at university, to prepare students for that which they will encounter. Albeit, whatever you are taught in higher education, the human relations approach promoted by the firm will be the biggest contributor to the individuals' life, not their higher education experience. Leadership will depend on the firm's organizational culture, and students will not be able to change that (especially true in bigger firms). In academia you may learn a lot and then simply not find it in a firm. Students in the workplace will have to be able to adapt to that which they encounter, for example the approach to relationships. As for messages communicated in academia, the approach should be the same, always, namely that of enlightenment. Finally, motivation is the most important ingredient to success, in the workplace.

6 Concluding Remarks – The Data Analyzed in View of the Literature

Alexandre Soares dos Santos is a very successful businessman. He made the Jerónimo Martins group into an €11.8 billion business, in 2013, achieved after 25 years, building on its position of €250 million in sales, in 1988; having moved from 4,183 employees, in Portugal, to 75,000 employees in that period, in Portugal and abroad (Poland and Columbia). Alexandre Soares dos Santos is quoted as having a paternalistic type of leadership style, as he looks at his firm as being a big family, with himself as head of the clan [19]. However, Alexandre Soares dos Santos admits that, for many years, people did not like him, and were afraid of him [19]. Was this an essential part of his success, coming across as being autocratic, though perhaps not looking at himself in that way? Being too close to employees is always bad, Alexandre admits, and he had to be hard, over his 45-year career, otherwise Pingo Doce would have closed down [19] (testimony as to a tougher stance as leader). Is the leadership example of one of the richest men in Portugal an answer as to what should be taught at university, in terms of leadership? Some students would perhaps think so, but not all of them. A desire to romanticize leadership exists, in our survey respondents, even in those who choose to be enlightened at higher education institutions. According to [20] high power distance means "employees being afraid to express disagreement with their managers" and this may occur with both paternalistic and autocratic leaders. Portugal does in fact score above average on power distance [20]. [21] classify Portugal as having "as is" power distance society practice amongst the highest group in the world. [22] found Portugal to have predominantly autocratic or paternalistic leadership. This Portuguese trait of bosses disliking being challenged or disagreed with might be the case in most organizations

but perhaps in communicating this to students some care may be advisable, to keep motivation levels high when entering industry.

Some leadership studies on the one hand tend to exaggerate the importance of leadership, while on the other hand romanticizing the topic [8], and this may be because this is what students would rather hear, as our study shows, to a certain extent.

We need emotionally intelligent leaders (including being highly motivated), but also market savvy ones, leaders who know what to expect from competitors, and who have workable solutions to specific problems, while maintaining an ethical approach, despite rivals (internal and external) perhaps not doing so. What we envision is that this may require exceptional training and development, in higher education. Never before have visionary, ethical leaders, concerned with corporate social responsibility issues, been in such high demand. What academia has to do is to churn out more leaders aware of corporate social responsibility, while also being "street savvy" and "street-wise", and prepared for competition as it presents itself to us, on a daily basis.

To become a great corporate leader may in fact be dependent on your DNA and personality make-up, but this is not what is thought to be true, by the majority of the respondents in the survey. Motivation took the most votes as being fundamental for success. This is seen to be positive and will hopefully signal a hard-working generation, the millennial generation – contrary to previous studies which portray them as being lazy [10]. Some romanticizing may be beneficial, but the great majority of students want to be enlightened and well-prepared for that which they will encounter in business markets. Much as in firms, where "employees require and desire training that will make them competitive in this highly demanding market" [23], so do the millennial students in our study desire training that will prepare them for the job market.

Finally, using technology in class is seen to be essential in getting messages across to students. Millennials are at home with technology and disregarding this preference is not advisable. Lecturers compete for students' attention with Facebook, Instagram, Snapchat, WhatsApp, Twitter, and other online platforms, and so need to entice them into the academic discussion by using the same digital-based tools.

7 Suggestions for Future Research

We suggest that, in the future, a greater number of students be surveyed. We are actually already working on a larger sample and will have the results gathered and analyzed soon. A bigger sample will also make possible certain statistical analyses, such as correlational analysis.

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