

INSIGHTS FROM CEEMAN NETWORK

SEPTEMBER 2014

THE USE OF TECHNOLOGY IN MANAGEMENT EDUCATION

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With the rapid advancements of technology continuously changing needs and expectations of students and customers and increasing global competition, business schools and management development institutions are faced with many opportunities and challenges for the ways they teach, operate, and promote themselves. Some embrace technology with openly while some prefer to follow more traditional and tested approaches.

For the 22nd CEEMAN Annual Conference, organized in cooperation with ESSCA School of Management in Budapest, Hungary on 25-27 September 2014, which focused on the topic of “When, Why and How Is Technology Reshaping Management Education?”, CEEMAN asked its members how they use technology in their programs, marketing, and operations.

The survey looks, among other things, at the share of institutions that include technology-facilitated content delivery in their programs (either in fully online or blended format), management subjects that are more often covered with the help of technology, use of technology tools to enhance teaching-learning experiences, extent of use and perceived effectiveness of various online marketing tools and social media, the use of massive open online courses (MOOCs), as well as the use of technology tools and systems in the institution's operations or administration.

The survey also explores the demand for seminars and workshops on the use of technology in management education for teaching and learning, marketing and communications, and operations, which CEEMAN could organize for its members in the future.

We have also asked our members to share some of their best practices and success stories on the use of technology in management education which are presented in the end of this report.

We hope that these data will serve as a useful reference material and inspiration for further effective use of technology in management education as well as for possible future collaboration projects within CEEMAN.

Based on an online survey conducted in May and June 2014, the report covers 65 institutions in 31 countries around the world, representing 45% of CEEMAN's institutional membership.

It looks into the use of technology in teaching and learning, marketing and communications, as well as in operations and administration processes.

It also showcases a few individual examples on the use of technology, kindly provided by some members.

CEEMAN would like to express thanks to all participating institutions and individuals for their time and input.

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EXECUTIVE SUMMARY

According to the results of the CEEMAN survey on technology use in its member institutions – business schools and universities – close to 70% of schools include technology-facilitated content delivery in their programs, either in full or partially. More frequently, it is used for graduate programs, in the form of blended learning (a combination of offline and online parts of the program), and at least in three disciplines within a single program.

Massive Online Open Courses (MOOCs) are used by about a quarter of respondents as an additional resource or reference material rather than as an integral part of courses or being developed by institutions themselves. About half of the institutions have considered using MOOCs, but have yet to make any formal decisions.

On average, the schools use about six different technology tools at the same time to support teaching and learning, the most popular being collecting student feedback online, computer simulations, and online quizzes and exams. Over 50% use various learning management systems, including Blackboard, Moodle, and digital whiteboards. Recorded video lectures, videoconferences and webinars are also used by about half of the respondents, while gamification is used the least out of all technology tools mentioned in the survey.

Facebook pages are most frequently used and are considered most effective compared to other social media tools. Online alumni groups and member areas, LinkedIn and Twitter are used by over 75% of schools, but are considered much less effective. Among online advertising tools, Google adwords are perceived to be most effective, followed by online banners and Facebook ads, while webinars are perceived to be the most effective tool for interaction with prospective students. LinkedIn and mobile app advertising is considered least effective and is also used relatively less (by less than half of respondents).

Over 80% of schools use YouTube for posting videos online (compared to using their own video repositories) and consider it quite effective, while blogs, although used by about 60% of the schools, are considered rather ineffective in supporting the school's marketing efforts.

Mobile apps and tablet applications are the least used in educational processes or in marketing.

When supporting operations and administration, systems related to connectivity (wireless, local area networks), as well as accounting and financial systems, are used by majority of the schools (over 80%), followed by customer relationship management (CRM) software (more than 60% of respondents).

DEMOGRAPHICS AND METHODOLOGY

The survey was distributed in May 2014 to 145 institutional members of CEEMAN (business schools and universities) in 46 countries. It attracted 65 responses from 33 countries (Albania, Austria, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, France, Georgia, Germany, Greece, Hungary, Italy, Japan, Kazakhstan, Latvia, Malaysia, Poland, Romania, Russia, Serbia, Singapore, Slovenia, South Africa, Spain, Switzerland, Turkey, UK, Ukraine and USA), which represents a 45% response rate and a significant geographical coverage of the CEEMAN network.

About two-thirds of the respondents were schools from Central and Eastern Europe (including 10 schools from Russia), Caucasus or Central Asia. Western European institutions represent 25%. Three respondents came from the USA, three from Asia, and one each from Latin America and Africa.

In most cases, the survey was filled out by members of management teams (e.g., deans, deputy deans, rectors, vice-rectors, directors), while some surveys were completed by IT managers, international relations managers, marketing and communication executives, or leading faculty members.

The intention of the survey was to get a quick snapshot and perceptions of the use of technology in educational processes, marketing, and operations of business schools. Therefore, the questions contained mainly pre-defined answer options in order to enable faster survey completion and get a higher response rate.

The answers were collected through SurveyMonkey.com, which allowed for easy tracking and automatic generation of basic analysis and charts. Incomplete surveys were excluded from the analysis and, on two occasions, the survey was filled out by two different people from the same institution which required merging the answers to receive one survey per institution for analysis consistency.

Further analysis of individual responses, summary data and charts was done manually (in Excel) on some occasions (e.g., to analyze participating institutions' demographics, to see the number of institutions having fully or partially online programs, to see the number of various technology tools used simultaneously). Additional analyses were done to produce more meaningful data on the use of technology in marketing and communications (grouping individual items by various marketing channel groups, partial grouping of extent and frequency of use). Some institutions have skipped certain questions, which was taken into account for the respective question analysis.

Further research can be done through structured questionnaires and interviews with various stakeholders in order to produce more detailed and objective insights in the above areas, as well as on the financial aspects of technology use, which was not in the scope of current survey.

SURVEY FINDINGS

Technology in Teaching and Learning

Close to 70% of respondent schools include technology-facilitated content delivery in their programs, either in full or partially (see Figure 1).

Do any of your institution's programs include technology-facilitated content delivery, either in full or partially?

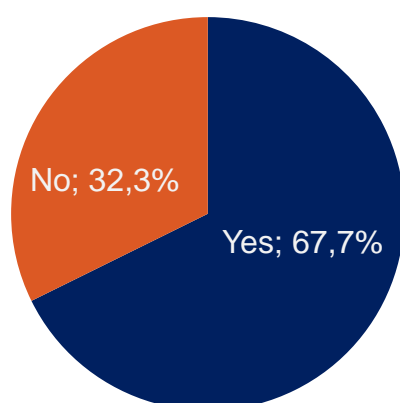


Figure 1. Presence of online component in educational programs

Distribution of fully online, blended and fully in-class programs

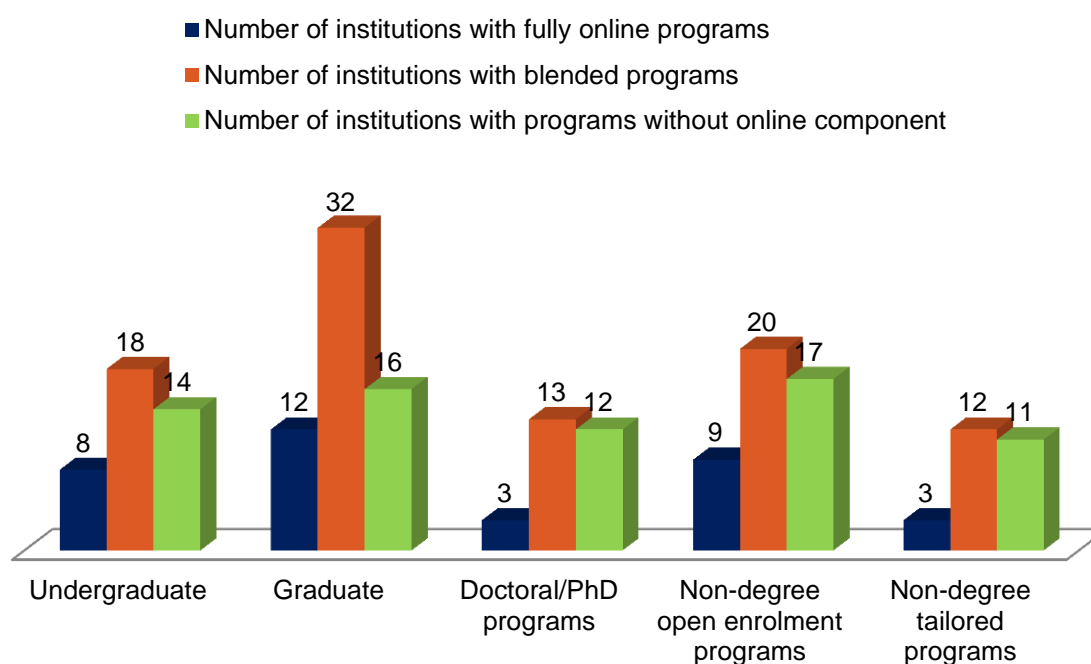


Figure 2. Number of institutions offering fully online, blended, and in-class programs

Blended program format seems to be the most commonly used across the respondent institutions, with graduate programs taking clear lead in this category, followed by executive education and undergraduate programs (Figure 2). On the other hand, doctoral and executive education programs seem to rely more on in-class and blended learning, with comparatively less fully online programs being reported on these levels.

From the list of management topics, Marketing was most frequently mentioned as being offered with the help of technology (80% of respondents), closely followed by Finance and Strategy (see Figure 3). IT Management, despite dealing with technology itself, reportedly seems to rely less on online/blended format, but it might be also be due to the fact that not all respondent schools have IT Management as part of their curriculum.

Ethics, Social Responsibility & Sustainability (including Environmental Management) were most frequently mentioned in addition to the above subjects/courses. Other topics included Economics; Project Management; Managing Teams; Entrepreneurship; Innovations; Technology; Insurance; Multi-channel Retailing; Law.

Overall, almost all of the 39 institutions that answered this question reported offering at least three disciplines in partly or fully online format (three also being the average number of subjects), and 60% of schools have an online component in more than five subjects. However, only six schools indicated that all of the management courses listed have an online component or are fully online.

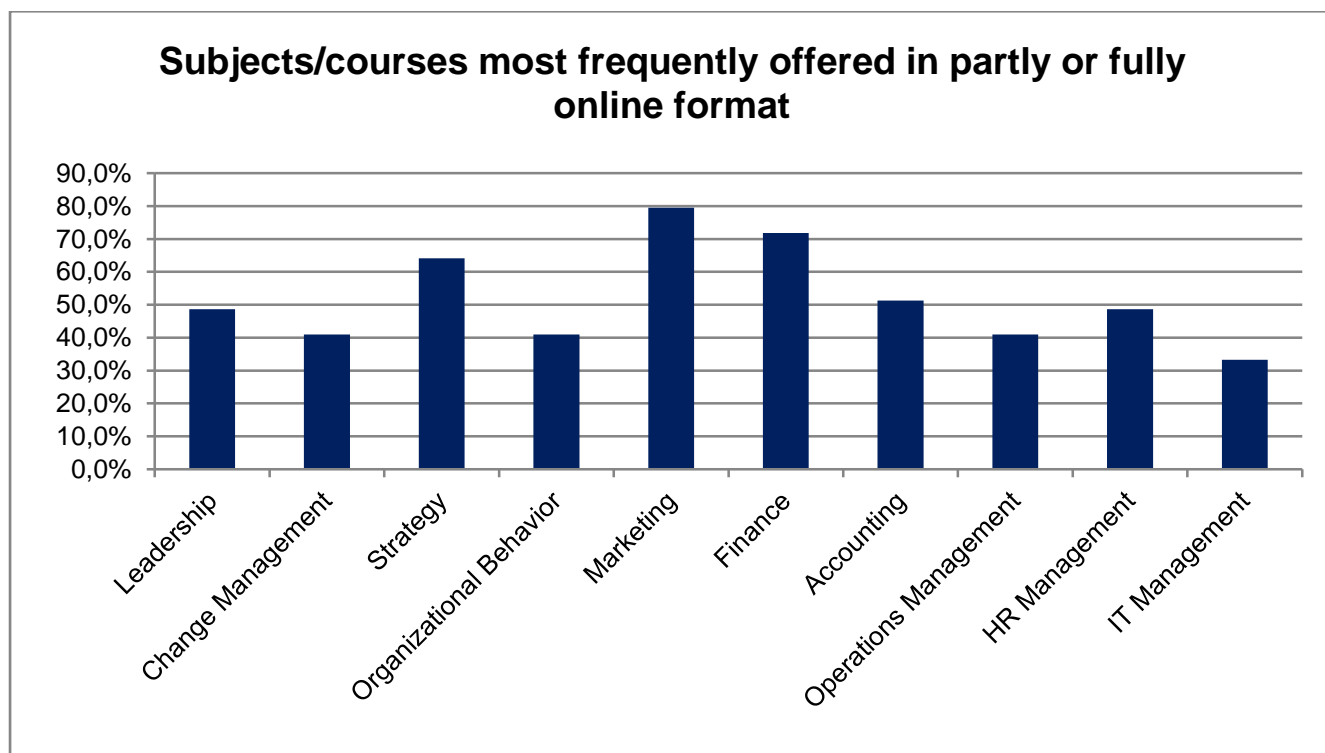


Figure 3. Subjects/courses most frequently offered in partly or fully online format

Surprisingly, despite all the recent discussion about Massive Open Online Courses (MOOCs), over a quarter of the respondent institutions have not considered using MOOCs in their education offerings and almost half said that they have considered using MOOCs but have not made up their minds yet (see Figure 4). Only 10 out of 62 institutions that answered this question mentioned that they develop their own MOOCs, and another seven use MOOCs as integral part of their courses.

More often (close to 20% of respondents) MOOCs are used merely as an additional resource or reference material.

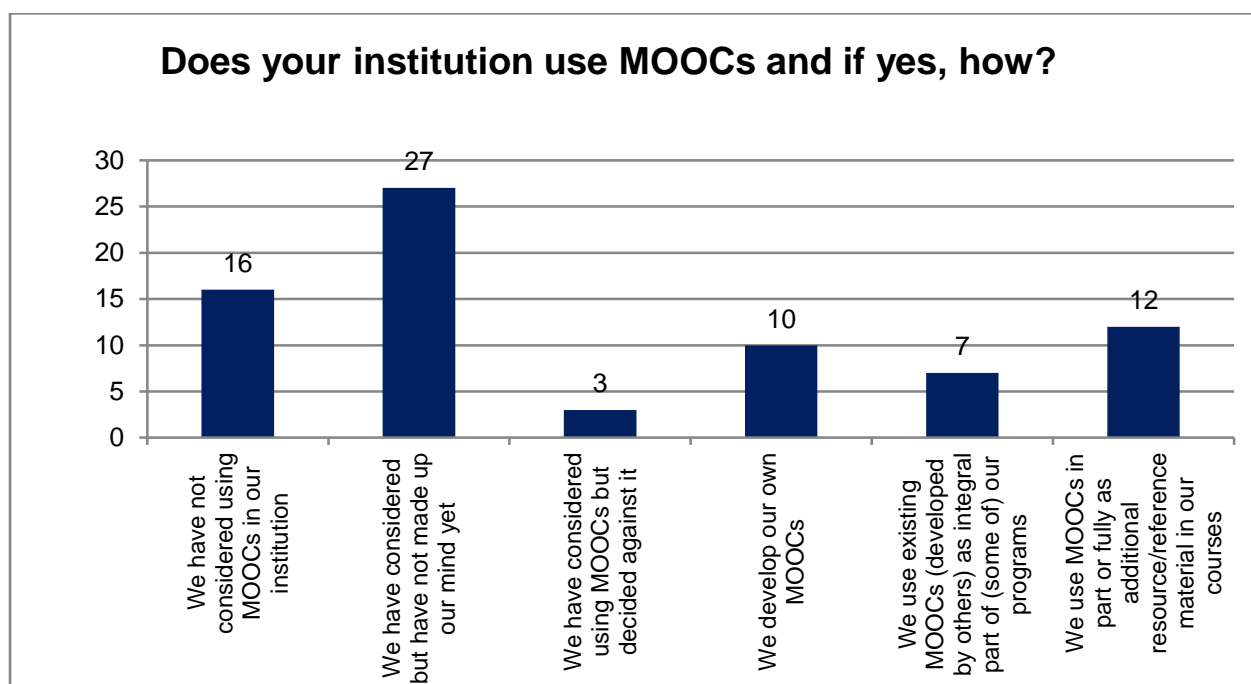


Figure 4. The use of Massive Open Online Courses (MOOCs)

Among technology tools used in teaching and learning (see Figure 5), collecting student feedback online turned out to be the most popular (almost 80% of respondents – 45 out of 62 – schools are using it), followed by the use of computer simulations (45 schools or 73%), as well as online quizzes and exams, and online collaboration tools such as forums, wiki's, or project rooms (used by over two thirds of the respondents). Recorded video lectures, videoconferences and webinars are used by over 50% of respondent schools. The use of clouds, member areas and other learning management systems was reported by 56% of respondents, indicating a transition to more innovative and more effective and sustainable sharing of teaching materials. Some specific examples mentioned were Blackboard technology, Moodle (Modular Object-Oriented Dynamic Learning Environment), as well as the use of digital whiteboards/digital ink, while some schools develop their learning management systems internally.

The relatively lower popularity of mobile and tablet applications (apps) for program content or its delivery could be explained by the need to develop customized solutions in order to use these tools effectively for which extra budget and technical expertise might be required but not be readily available. Also, it would presume all students to have smartphones or tablets which might not be the case depending on the program level, students' personal income or school's budget.

With the availability of various clicker systems and mobile apps for real-time polling, one might expect higher rate of the use of polling and voting systems but at the same time they might also be considered not as crucial in the teaching/learning process.

Finally, the use of gamification was reported by only 12 schools. This may be due to the relatively recent introduction of gamification techniques in management education and late adoption response by the schools. However, with gamification penetrating more areas (including its growing use in marketing and customer engagement) and its easier adoption by the younger generations, we might witness its growing application in management programs.

On average, the respondent schools use six different technology tools at the same time, with 80% of the respondents using four or more tools from the ones listed in the question.

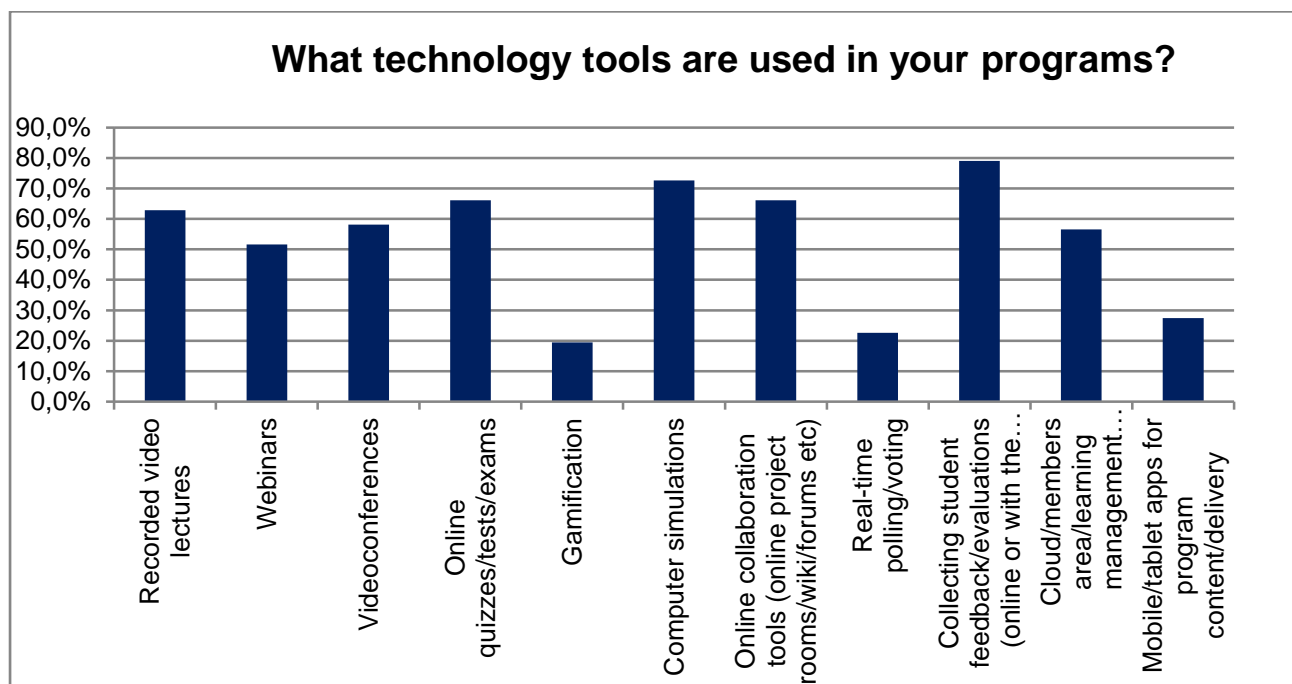


Figure 5. The use of various technology tools in educational programs

Leveraging Marketing and Communications

We asked our member schools about the technology tools they use in marketing and communications, including various social media, online advertising, videos, webinars, and blogs, the frequency with which they use each respective tool (Figure 6), and how effective these tools are perceived to be.

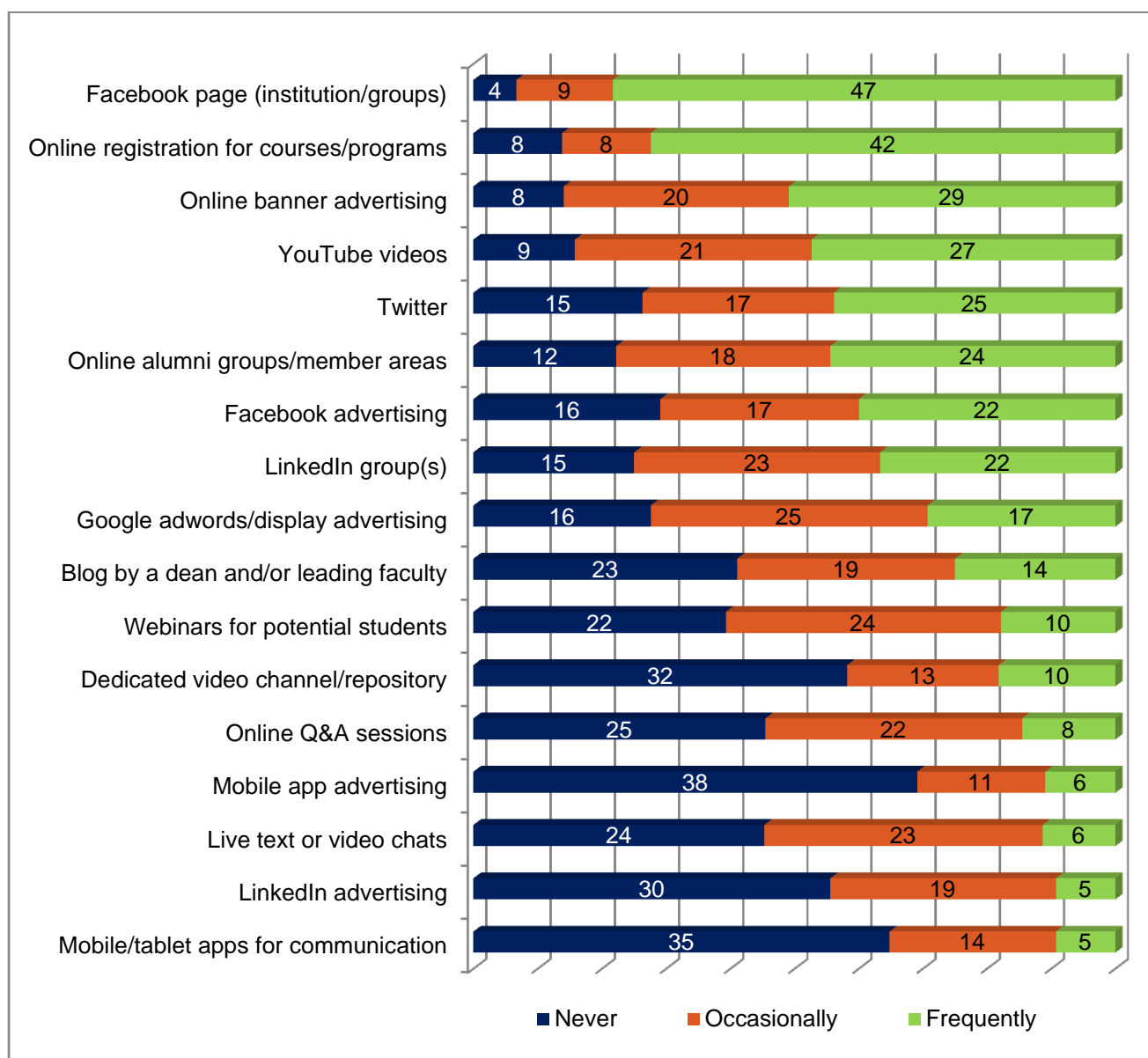


Figure 6. Technology tools for marketing and communications - frequency of use

When looking at the use of **social media**, having a Facebook page was reported the most frequently used (close to 80% use it frequently), and it also perceived as the most effective out of all other technology tools mentioned in the question (60% consider it to be effective or very effective). Only four institutions out of 61 reported that they have never used a Facebook page for their institution. Online alumni groups and member areas are second in popularity, used by 78% of the schools, but are far less effective: only 38% said they are effective and almost the same number are undecided about its effectiveness. LinkedIn profile/groups and Twitter are used by around 75% of respondents, although LinkedIn is considered slightly more effective (45% vs 32% for Twitter, where over a third of the respondents are undecided).

When it comes to **online advertising**, online banner advertising leads the way being used by 86% of respondents (Figure 7). Advertising through Google adwords and Facebook ads is slightly less used (just above 70% each) but Google is considered most effective compared to all other online advertising channels (48% for Google adwords vs 37% for online banners and 33% for Facebook advertising reported it to be effective or very effective). LinkedIn advertising is used by only 44% of the respondents while advertising through mobile apps is the least popular (31%), although considered slightly more effective than LinkedIn ads (for which 60% said it's ineffective or very ineffective).

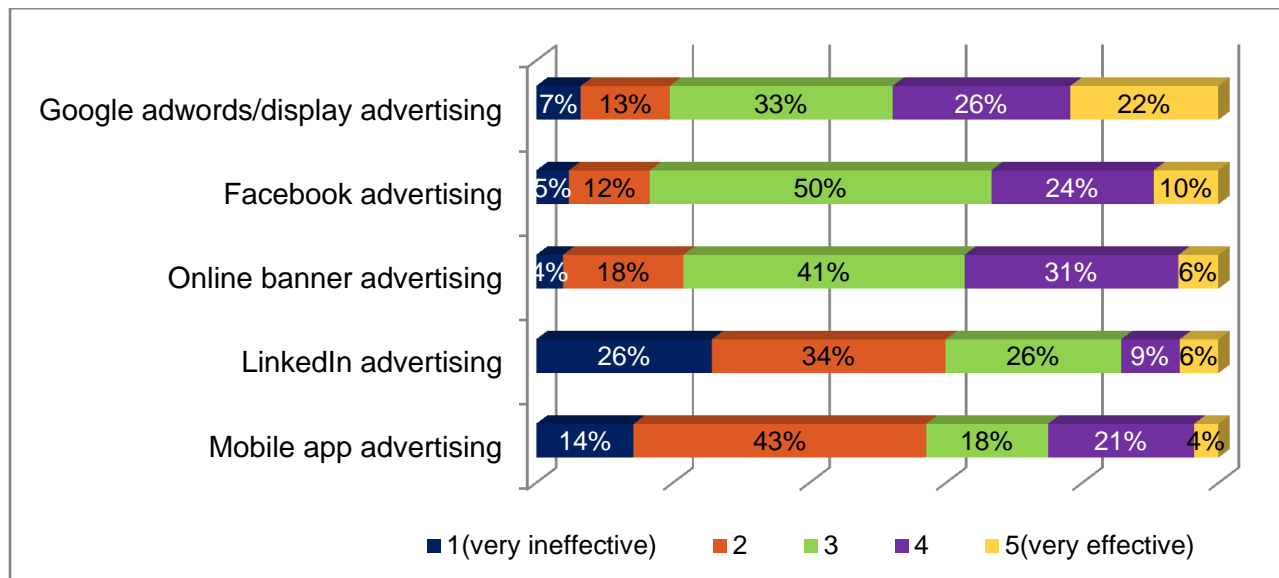


Figure 7. Perceived effectiveness of online advertising tools

Regarding channels for **interaction with potential students**, online Q&A sessions, live text of video chats, and webinars enjoy comparatively similar popularity, being used by 55 (61%) of respondents. As might be expected, the frequency of use of these channels is lower than for social media and online advertising which comes from the nature of the technology itself (i.e., comparing webinars vs. social media, where interaction goes on almost continuously). However, webinars are perceived far more effective, beating even Google adwords, with 50% of respondents considering them to be effective or very effective. Live text or video chats are comparable in effectiveness with Facebook advertising (at 38%), followed by online Q&A sessions (33%). Mobile and tablet apps for communication with prospective students are again the least used (only by 35% of respondents who answered the question) and perceived the least effective (50% consider it ineffective or very ineffective).

Close to 85% of the respondents use YouTube for placing **videos** and 48% consider it to be effective or very effective. Having a dedicated video channel or repository is much less popular (only 42% use it, which might be associated with bigger cost and more efforts needed to sustain it).

Almost 60% of the schools use **blogs** by deans or leading faculty members and videos but they are considered rather ineffective (36% said blogs are ineffective or very ineffective, vs 31% supporting the effectiveness).

Moving closer to the admission process, and partly overlapping with the next category of operations and administration, **online registration** for courses and programs is almost uniformly used (only 8 institutions do not have it) and is considered effective or very effective by 76% of the respondents.

Supporting Operations and Administration

With this question, we wanted to look into what kind of organizational processes are most frequently managed with the help of technology.

Unsurprisingly, the systems related to connectivity (e.g., wireless internet, local area networks) and intranet, as well as accounting and financial reporting systems, are used by most of the respondents (over 80%). Customer relationship management systems (CRMs) are used by over 60% and a few other respondents mentioned contact/client management systems, which we would add to this category as well.

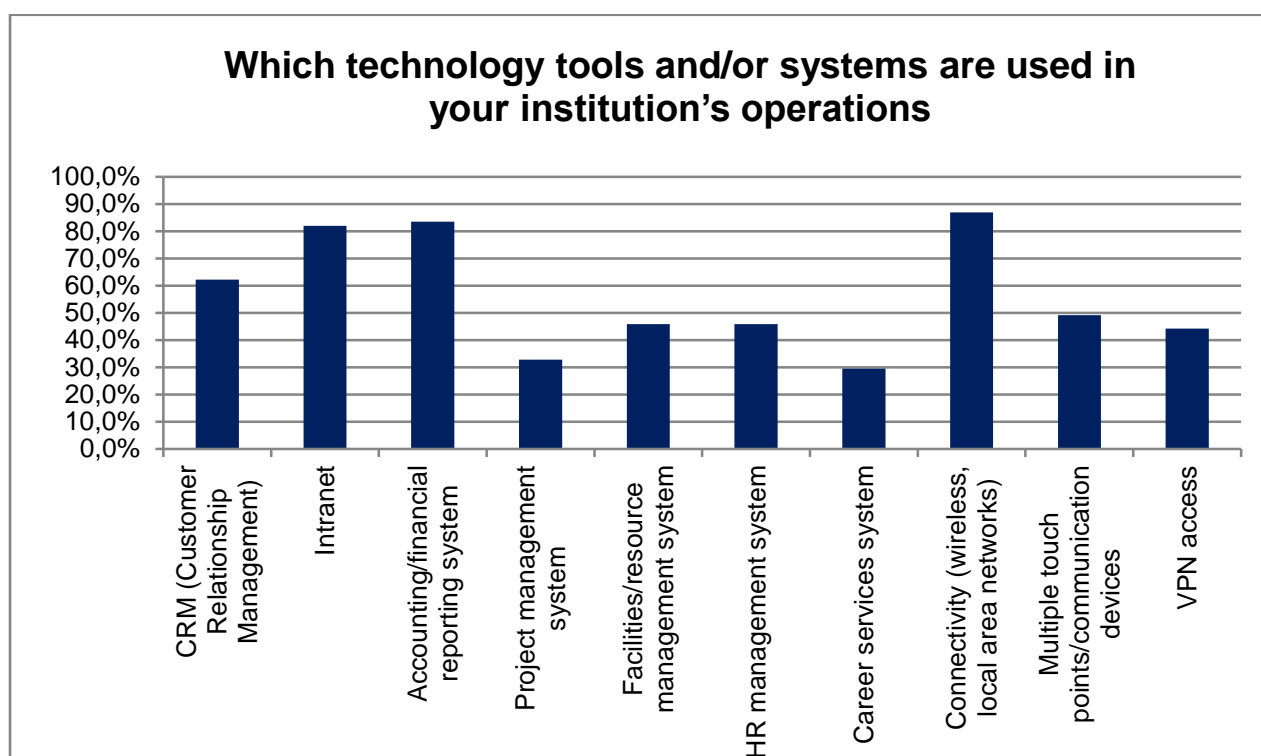


Figure 8. The use of technology tools to support institution's operations

Still on the IT management side, multiple touch points and communication devices (e.g., integration of the use of computers, laptops, tablets, mobile phones) are used by 49% of respondents and virtual private networks (VPN), enabling secure access to organization's intranet while being outside the office, is used by 44%.

Various management systems for HR and facilities/resource management are used by 46% while project management systems are the least popular being used by only 33% of the respondents.

Demand for Learning More about Technology

We also asked about interest in seminars and workshops for business schools on the topics of technology in order to see the potential demand for such kind of events and perhaps develop some of them as part of CEEMAN programs portfolio in the future.

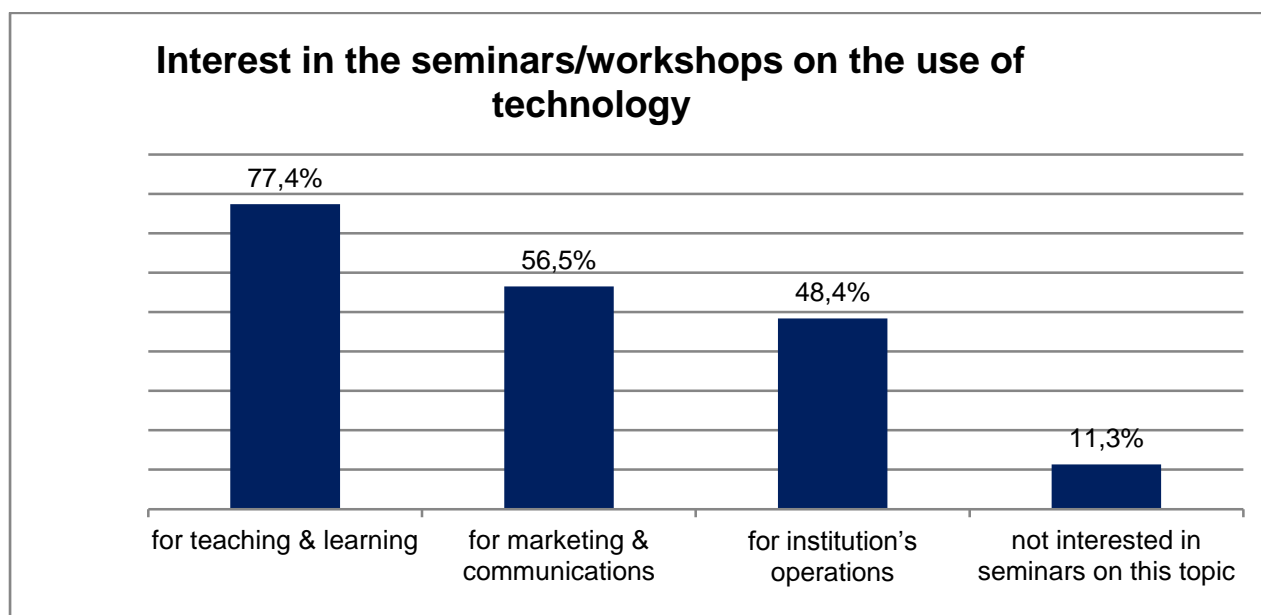


Figure 9. Interest in the seminars on the use of technology (by topic)

Most of the respondents (77%) mentioned that they would be interested to learn more about the use of technology in teaching and learning, while 57% and 48% would like to find out more about technology for marketing & communications and operations respectively.

BEST PRACTICE EXAMPLES

Enrollment Management and Marketing Analytics at ALBA Graduate Business School at The American College of Greece

www.alba.edu.gr



The Greek Crisis has been devastating for the country and a tremendous threat for the School. We were able to convert the threat into an opportunity and restore enrollment to pre-crisis levels in four years. As part of this effort we launched a number of innovative marketing initiatives. All of these initiatives rely on customized website landing pages where we have the opportunity to capture prospective candidates. That data is accumulated into a custom-made prospect and CRM system that records all interactions from first contact to application submission. This system allows us to follow up on prospects individually and to customize various marketing campaigns throughout the prospect lifecycle from lead generation to application. On top of this system we have implemented real time analytics and intelligence reporting, tracking a large number of KPIs against previous years and across multiple dimensions. This data is used as part of daily, weekly and monthly performance management and for management reporting. It is the tool that has allowed us to perform real-time marketing adjustments, to allocate budget and resources in a finely-tuned way, to forecast enrollments and revenue, and to optimize overall management attention. During the same period we have launched 9 new degree programs. It would have been impossible to support all this aggressive growth investment without a sophisticated and integrated IT infrastructure. It is also important to note that during this period we have reduced administrative headcount and budgets.

This capability is implemented on Microsoft Sharepoint and SQL Server. Analytics are delivered via Excel connections to SQL data marts. All of that has been developed in-house by a very small IT team. These systems are fully integrated with other related systems, such as admissions, registrations, student management, invoicing and financial accounting. Equivalent analytics are available across all systems, most of which are also on Sharepoint.

This infrastructure is the bedrock for the collaboration between the Academic Programs Division, the Marketing Department and the International Development Department. Within Academic Programs we have a matrix structure, where each member coordinates one or two academic programs, while at the same time acting a manager for a key process across all programs. One such key process is “From Lead Generation to Application”. All members are well versed in the transactional systems and the intelligence reporting and use them daily. Academic Directors, the Associate Dean and the Accounting Department also share the same and/or customized analytical reporting (mainly pivot tables and pivot charts). Most users are trained to develop their own pivot tables and charts on the existing data marts. Current development plans include the migration to Sharepoint 2013 with enhanced prospect management capabilities (including multi-channel funnel analytics) and training key users on the latest Excel Power Pivot and Power Query for even greater reporting flexibility.

Video Lessons at Caucasus University, Georgia

www.cu.edu.ge



Teaching methods are becoming more and more technology-based in Georgia. Caucasus University (CU), especially its business school, is well-known among the number of international partners who are using distance learning and different tools in teaching methodologies. Unfortunately, Georgian legislation on education and science has a restriction regarding distance learning. Caucasus University's goal is to be an innovator in the area of education. One of the strategies to accomplish this goal was to integrate small pieces of distance learning into courses along with regular in-class teaching methods. The solution was found in video lessons, where recorded videos are used as a supplementary tool for students to review the class materials at home. Students have to attend quizzes, midterms and final exams but they can do the lessons remotely using the video lessons.

A decision was made and a professor of Caucasus University's Caucasus School of Technology (CST) recorded MS Office video lessons of Information Technology course. Today, about 162 videos are publicly available on the YouTube channel of CST and nearly 3,000 students and more than 20 professors are using these video lessons. The number of views especially increases during midterm and final exams. The average duration of each video is 25 minutes and average time of audience retention is 30 minutes. These courses are screen recorded, so that all the activities are visible on the viewer's screen. The majority of viewers of videos are computer users rather than mobile or tablet users.

First of all, video lessons give a chance to students who miss a class to watch and listen to class material afterwards. Flexibility is another advantage. The user can pause the video lesson anytime and use rewind or forward buttons. The user can watch a single video as many times as he/she needs.

Judging by experience and student feedback, the only disadvantage of video lessons is that in cases of questions or misunderstandings students cannot interact directly with the professor and get feedback about their points.

Recorded videos are in the native language so the target audience is not limited to CU students. At the beginning of the project, however, settings of the YouTube channel had a restriction due to language and therefore the videos were hosted on a local server and were available only for University students. Now, any person willing to study MS Office and other IT courses can watch them as the videos are public. The channel has attracted visitors from different countries: these are often Georgian people living abroad.

Based on positive feedback, the university administration and CST faculty started to record other technology based courses, e.g. Data Analysis and Business Modeling, Information Bank of Law. Technology based courses are better explained visually and that is why video lessons are growing in popularity.

By George Datukishvili, PhD, Dean of Caucasus School of Technology

**Collaborative Online Learning at DOBA Faculty
of Applied Business and Social Studies
Maribor, Slovenia**



www.doba.si

Collaborative learning enhances student performance and, for online degree programs that are conducted fully online, it is important that this pedagogical approach is adequately translated into an online learning environment. While asynchronous collaborative online learning employing tools such as forums, blogs, wikis, etc. is a well-established approach at DOBA, DOBA's instructors are dedicating more and more attention to synchronous (real-time) collaborative online learning as it brings a new dimension to promoting connection and less isolation among distance students.

An example of best practice was a methodological course (Integrative Project) where students learn about the process of preparation of a research plan and they base this on the example of their master's thesis. At the same time they also learn about data processing and basic statistics with MS Excel. For the purpose of this course a hands-on exercise in Excel for editing databases as well as mean values and measures of variability was prepared. The main goal was to design an online tutorial where students would work in teams of 5 - 6 using a shared document and would, through discussion and collaboration, try to solve the task together using the methods that had been previously explained in an online lecture. Thus, we used a combination of two applications: communication among team members and the instructor was enabled through Blackboard Collaborate, an online collaboration platform providing web conferencing, mobile collaboration, instant messaging, and voice authoring, while simultaneous co-authoring of the Excel document was enabled via MS Office 365. Instructors created an Excel document for each team in OneDrive for Business, a MS cloud storage space. The document was shared among all members of the same team. First, in the Blackboard Collaborate main room, an online lecture was first conducted. To facilitate and monitor collaboration in small teams, instructors created rooms separate from the Blackboard Collaborate main room and placed students into so called "breakout" rooms, where they could communicate and work on the task simultaneously. Breakout rooms have their own private audio, video, whiteboard, application sharing, etc., so the collaboration that takes place in a breakout room is independent of the main room (and other breakout rooms). In order to monitor students' work and provide real-time feedback, the instructors "walked" among the team rooms, i.e., switched from one room to another.

The exercise was evaluated by students on a scale from 1 to 7 (7 being the highest grade). Students evaluated the exercise very positively also in terms of further promotion of learning (6.50) and promoting simultaneous team work (6.43). For technical support, a high average rating of 6.07 was received. From the comments it is evident that students welcome such a way of work: they find it practical and that they can learn a lot. Despite the fact that such a method took a lot of time, they were of the opinion that they gained a lot in terms of acquired knowledge and motivation. Last but not least, students exposed one important advantage of working in small teams with the instructor: they felt more relaxed among their peers which made it easier to open up and discuss task related issues.

From the instructor's point of view it is important to say that such tutorials should be carefully planned and prepared, especially in terms of detailed technical guidance for students and technical preparation of the tutorial as students work simultaneously with different applications using different communication tools, and smooth communication among them is of vital importance for the success of such an approach to real-time team-based learning in a fully online course.

An Institutional Approach to Embracing Technology to Enhance Management Education, Glasgow School for Business in Society, Glasgow Caledonian University, Scotland, UK

www.gcu.ac.uk



The Challenge

The challenge is simple, or is it? How do management education institutions exploit the considerable potential that technology has to enhance educational development and effective learning? In a world characterized by mass higher education, fewer resources, and increasing competition, technology seems to offer a myriad of ways to help institutions to manage scarce resources, make teaching more enjoyable, and make learning more enjoyable for students.

How GSBS uses technology to address some of the challenges

We found it difficult to pick out a single case of 'best practice' in our School, as we have so many exciting experiments going on. We therefore decided to share six cases with CEEMAN colleagues, as we felt it is important to demonstrate:

- a) the myriad of ways that we can enhance and transform the way we do things with the aid of technology; and
- b) the importance of having a joined-up strategy for using technology in our workplace.

Six cases and their impact

The first case from Mandy Sheridan demonstrates how a computer-based marketing simulation can be used as a vehicle for 'Real World' experiential learning, engaging students by challenging them to act as Board members of a company, make a set of strategic marketing decisions, and decide what to do after students get a simulated response to their decisions from the computer.

In the second case, Michael Bromby engages students in a different way, by using Nearpod technology in the lecture theatre to make lectures interactive and more flexible. Students can use android or apple-based devices to answer questions posed in the lecture, take multiple choice tests, and provide feedback.

Our third case by Sabine McKinnon shows how we can internationalize the curriculum and classroom experience without leaving our home university by joining the Collaborative Online International Learning (COIL). GSBS academics are working with the State University of New York (SUNY) and a global network of educators who use technology to connect academics and students worldwide on modules and degree programs to promote collaborate and cross-cultural learning.

In the fourth case, Anne Smith and Peter Duncan share their experience of using Web 2.0 wiki technology to implement this type of international collaboration, providing a collaborative, international and cross-cultural 'Real World' experience for students for on an international

entrepreneurship project. Our fifth and sixth cases emphasise the importance of providing quick and consistent feedback to students to enhance learning.

Fiona Skillen and Gary Smith show how they use the Blackboard managed learning environment (MLE) to provide rapid responses to large numbers of students in different geographical locations. Use of this technology provides flexibility to students taking the test, any time, anywhere; it is less resource / staff intensive due to computer-generated marking; and offers a quick release of marks, giving students valuable and timely feedback on performance.

The last case by Margaret McCann and Ken Garner continues on the same theme, and discusses how electronic feedback software called Turnitin Grademark can be used in a similar way.

Conclusions and recommendations

The possibilities technology offers to management educators are enormous. To exploit these, management education institutions need to create space and incentives for academic staff to keep up to date, experiment, and integrate in to learning and teaching strategies.

Due to space constraints, we have used technology to enable CEEMAN colleagues to read all six cases introduced here, please follow the link below to our 'padlet' wall:

<http://padlet.com/GSBS/CEEMAN22>

By Alec Wersun, Mandy Sheridan, Michael Bromby, Sabine McKinnon, Anne Smith, Peter Duncan, Fiona Skillen, Gary Smith, Ken Garner and Margaret McCann.

Using Crowdfunding to Finance University's Project-related Activities at HHL Leipzig Graduate School of Management, Germany

www.hhl.de



We would like to share our experiences at HHL in creating and pursuing a crowdfunding campaign to raise money for universities. To support the case with scientific knowledge, we also conducted a study among the supporters with the aim to learn more about their intentions and attitudes for their support, which we would like to share.

The HHL Leipzig Graduate School of Management is a private business school in central-eastern Germany and we used a crowdfunding campaign to finance the renovation of a new building. HHL students seek to participate in its education programs from all over the world. Hence HHL was facing the challenge to expand its teaching space and offer new innovative learning spaces such as new pc-labs, study rooms and creative labs to provide an appropriate learning environment in the new building.

Therefore, we developed a financing and marketing strategy by using crowdfunding* to finance the renovation and equipment of the new academic building. In general, the use of crowdfunding has taken different forms and often depends on the purpose of the funded projects. We distinguish between crowdfunding for commercial, social and artistic projects. According to our own studies, crowdfunding for social and artistic reasons is mostly done through donations or sponsoring. In crowdfunding for economic reasons (crowdinvesting) mostly the capital is provided by forms of stock shares, silent partnerships or subordinated participating profit loans.

For the crowdfunding campaign we considered several details such as the relevant marketing channels, communication strategy, and funding-related issues (e.g., financial procurement, funding limit) that resulted in the specification of three key elements: the chosen platform, the targeted crowd and the selection of incentives. In our case, we decided to create a donation-based campaign. This was the starting point for selecting an appropriate crowdfunding platform, where we were glad to establish a partnership with "Fundsters".

It was self-evident to us to target the group with the highest interest in the development of HHL: former students. Accordingly, we chose incentives and formed a communication strategy that involved personal and virtual contact to alumni, event marketing, and media campaigns aligned with the overall university's strategy in order to attract that group. The campaign has proved to be very successful because HHL attracted more than 300 supporters among around 1550 contacted alumni which funded the project with more than 280.000 Euros.

By Andreas Pinkwart and Anja Hagedorn

*According to Schwenbacher et al. (2010), crowdfunding is an "open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes".

Online Marketing Performance Measurement at the IEDC-Bled School of Management, Slovenia

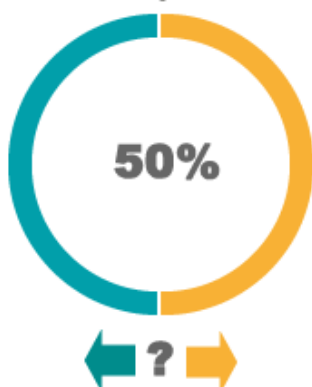
www.iedc.si



A School with a View

"Half the money I spend on advertising is wasted; the trouble is I don't know which half."

John Wanamaker (1938-1922)



IEDC recognized that in today's digital world it is crucial to have all the information on hand about how investments in digital marketing are influencing the performance of online and traditional (offline) sales channels in the school.

Because we were not sure if our online efforts bring better sales results we needed better insight in how successful or unsuccessful we are.

The problem that we identified also is connected to the fact that these days customers are often engaging with different devices, platforms and online and offline channels when making a purchasing decision and therefore the solution would need to offer a framework for measuring the exact impact of all online and offline efforts.

Performance marketing offered by three joined agencies (Pristop, Goldbach and Renderspace) was exactly what IEDC needed. This framework gave us the possibility to start with the project immediately and also offered the solution to many other challenges addressed above.

We joined forces (the agencies, IT department and Marketing department) and designed the project that would bring our MBA marketing efforts to the next level.

1. We first surveyed our existing customer base in order to better understand their needs, then applied that knowledge from the survey results to advertising content and with smart use of different digital channels to improve our visibility and ad conversion rates massively: (from 0,02% to 4,6% in Google Display Network and from 0,04% to 50% in Google AdWords)
OFF-SITE performance
2. Then, with the use of the right tools and techniques (for example: Content Management Systems, Analytic Systems, Webpage improvement systems, Strict website standards and SEO practices) we optimized our landing pages and improved the conversion rates for lead collection. (From 0.01% to 4.8%)
ON-SITE performance
3. We connected online and offline marketing data using our CRM system. By establishing a link between CRM and web analytic systems we could measure ads and other marketing performance indicators effectively and apply this valuable feedback to the next advertising campaign.
BACK-END performance

With continuous optimization and improvements of all the aspects of the online campaigns we lowered the cost of advertising and maximized the sales results.

IEDC performance ECOSYSTEM



We also took advantage of the contractual side between IEDC and our advertising agency. The performance marketing model on the agency side offered us a way to link the end sale result to a bonus amount. So the better the results of IEDC, the better the bonus for the agency. The agencies could therefore offer us much lower rates and could still earn well if they would perform well. This also eliminated mistrust in agency effectiveness and created a stimulative environment where the continuous improvements helped us to squeeze value from any investment marketing and link it directly to revenue.

By Gorazd Planinc, MBA, Web Marketing & IT Advisor

Integrated Information System at International Management Institute of St. Petersburg IMISP, Russia

www.imisp.ru

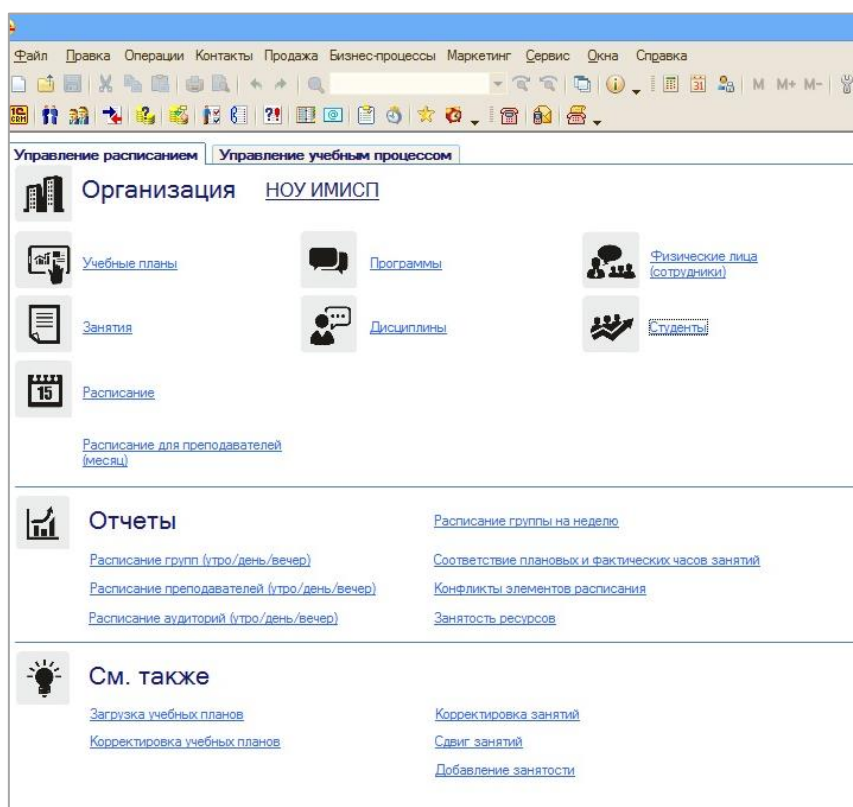


IMISP has an integrated information system which is used for managing target segments in the market, supporting program delivery and budgeting and control. The system was introduced in stages over past four years. Presently it is fully in place.

The CRM-module of the system allows us to communicate with the market and to receive feedback. The module tracks the enrollment process, stores the history of relations with clients, and does the paperwork necessary for admission. Essentially, it is built as a classical sales funnel. That design reflects the centralized model for selling educational programs traditionally used at IMISP. It is managed by the Marketing and Sales director and the department staff.

The e-learning portal is another part of the information system. It is a powerful support for teaching: from slides, case studies and tasks used in a classroom, online exams and tests, to students' feedback about the quality of teaching. It is also a platform for distance learning which is currently being introduced across IMISP's program portfolio as a brand new part of face-to-face programs and stand-alone courses.

The program administration, budgeting and control module provides program directors with flexible tools for program design, budgeting and assessing actual results. It helps program administrators perform the day-to-day routine of academic activities. The module also transfers consolidated results of the program portfolio budgeting to plan and forecast the academic year and to analyze the plan vs. actual results when the year is over. The e-learning portal and the budgeting module are the responsibility of the vice rector.



The integrated information system not only provides the institute with a uniform set of practices related to the market, program delivery and management, but it also helped significantly reduce costs and establish a stronger competitive advantage.

IPM Business School has deployed E-University, a distance learning system (DLS) developed by International Business Alliance (IBA), Minsk.

Functionally, DLS is comprised two subsystems:

- Content Management System (CMS).
- Learning Management System (LMS).

The existing distance learning system implemented by IPM Business School is used in three modes

1. Full-time learning support
2. Mixed learning support
3. Full distance (electronic) studies

Some elements of distance learning have been already included in the Executive MBA program and other qualification programs. Our goal is to redirect some theoretical issues from class discussion to self-education through the distance educational platform.

The Professional Manager program combines both online sessions and a limited number of intensive offline classes. IPM believes that blended programs are more effective than a wholly online approach. The School's experience with the Professional Manager program has shown that many practical skills, especially communication skills, are better developed during face-to-face meetings when students can share their experiences, react to each other's opinions and engage in role playing games and business simulations.

IPM is planning to expand its existing distance education program and develop three new qualification programs in marketing, sales and logistics. IPM plans to offer all four qualification programs to students based in five regional centers as well as in Minsk in 2015. In our plans we also expect to develop a distance MBA program which is urgently needed for Belarusian regions where there are no options to receive quality business education.

IPM Business School uses a single IT system based on a Lotus Notes platform. This system includes the following modules:

- CRM system: contacts
- Document management: courses and seminars
- Training content management and storage: knowledge base

CRM system: Contacts, addresses the following key tasks:

- Storing information about the organizations of interest and business relations with them
- Providing convenient business correspondence tools (sending e-mail messages, storing information about letters and faxes sent, etc.)
- Logging and storing information about contacts or interests identified

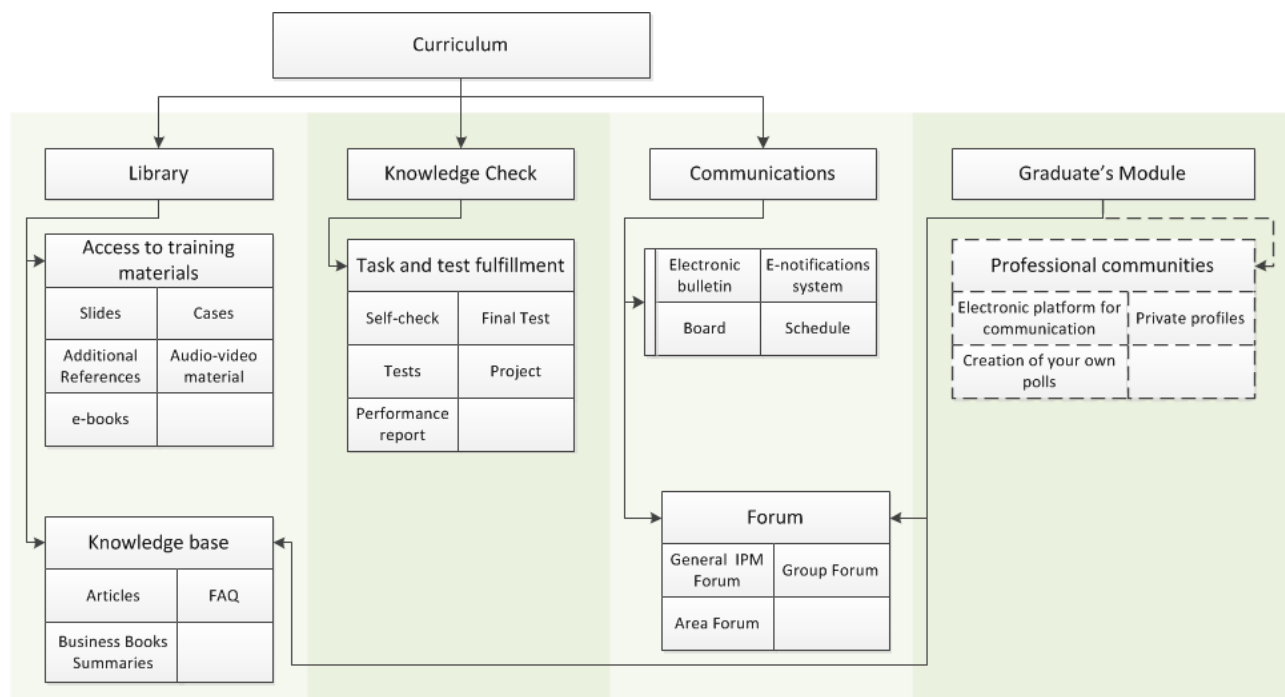
- Maintaining alumni database
- Assigning tasks to employees of the organization and monitor their implementation
- Creating various reports, including marketing reports, for different sample groups

Document management system – Courses and Seminars supports the following key tasks:

- Performing quick assessment, monitoring status, and analyzing results for all courses and seminars or for individual seminars at any stage
- Issuing and controlling assignments
- Automating invoice and contract generation (based on templates - short-term and long-term seminars and contract with teachers)
- Information cards for completed seminars / courses are transferred by the coordinator to the archive with the possibility of recovery
- Creating reports for different sample groups

The Knowledge Base module is a shared repository of e-books, magazines, subscription articles, videos. This provides teachers with the necessary materials in the process of development of courses.

Implementation of a single information system ensures data integrity and consistency



DLS-Students interaction chart

Technology-enhanced Learning at the Jack Welch Management Institute, Strayer University, United States

www.jwmi.com



The Jack Welch Management Institute (JWMI) offers three formats of technology-enhanced learning.

1. **100% Online / Small Cohort / Asynchronous:** Our Executive MBA program and two certificate programs both employ this learning model. Course sections are professor-led and capped at approximately 20-25 students. While some optional synchronous sessions are offered as tutorials from time to time, the core weekly discussions are hosted as threaded questions on the Blackboard Learning Management Software (LMS). One or two official Discussions Questions (DQ) are used each week and every student is required to make (a) at least one substantive original contribution to the DQ and (b) at least two substantive follow-up postings in response to classmates postings. This small cohort design allows for participants to become familiar with their classmates and the professor quickly. The required participation requires consistent preparation on the part of students and elicits more interaction between students than would occur in a traditional classroom setting. Professors contribute to each DQ by also responding to student posting and by answering related questions outside of the required DQ. Most student postings are done in written form but professors typically use short videos (e.g., 1-3 minutes in length) to post observations about the weekly topics and to respond to students' postings. This video posting format makes the online learning process more personal for the students.
2. **100% online / Self-paced:** JWMI offers six short courses on various business topics that participants can complete in a self-paced manner. These are not instructor-led but are designed to be freestanding management training courses. Each course typically consists of 10 modules, each with (a) an introduction video by Jack Welch, (b) a self-assessment intended to survey the participant's current level of familiarity and current practices, (c) a Study section consisting of an animated video to explain the principles and practices highlighted in each module, and (d) an extensive reference "Playbook" to support the application of the tools and techniques introduced in each module. While the LMS includes community tools for discussions, these courses are not completed in a cohort so participants are free to use whatever pace is effective and practical. The key resource in the effectiveness of this learning method is the Playbook that includes specific directions on how to apply the ideas in each section in the short, medium, and long-term.
3. **Hybrid:** Elements of the learning models explained in (1) and (2) above are combined with traditional classroom sessions for in-company programs for some of the executive education clients of JWMI. For example, a group session at the start, mid-point, and close of a course with the use of the self-paced material described in (2) has been adopted by several clients. This is seen as an efficient and effective way to access the course content and utilize a traditional setting for discussions focused on application.

The Use of Technology at Kozminski University, Poland

www.kozminski.edu.pl



KOZMINSKI UNIVERSITY

In 2014 Kozminski University (KU) distributed 250 tablets to its students participating in programs and specializations such as Marketing in Virtual Environment, Doctoral Programme and Kozminski Advanced Management Program. These tablets will be used for testing and experimenting with the use of multimedia and more interactive teaching methods.

In 2012, faculty and staff were provided with the Podio platform. Podio is a Facebook style application for organizational knowledge sharing and internal communication and offers advantages over simple email. It is equipped with such functionalities as data storage and dissemination. Podio was used successfully to facilitate the launch of the SARE mailing system, a new website for the Centre of Excellence, and many other smaller improvements in KU. Additionally, access to Podio has been granted to all MBA and postgraduate program participants. Finally, in order to enhance KU's image as a leading center of executive education MBA and postgraduate programs, our faculty has been encouraged to actively engage in publishing in professional press and Internet portals.

In 2012, the mobile application iKozminski premiered. It allows accessing the Virtual University from mobile devices and also provides campus maps. iKozminski has extended the already existing channels of communication between the University and students, who were previously utilizing email and SMS systems. KU is the first University in Poland which offers such IT solutions to its students. iKozminski is an application developed specifically for community of Kozminski University: applicants, students, alumni and staff. To log into the application, as a student or employee, it is necessary to use the same data as for the Virtual University. The application is available in both the App Store and Google Play. Kozminski Mobile Application allows users to:

- Quickly review the events currently taking place at University,
- Browse our range of education and recruitment information,
- Search for information about our lecturers, including their roster and schedule,
- Full access to the data related to the course of study,
- Browse the map and navigate through the college campus.

Other developments are electronic syllabi and course handbooks implemented in 2014. These are standardized and automated versions of traditional didactic tools. Electronic syllabi and course handbooks are designed to support KU's quality assurance processes.

KU is focused on continuous presence and extensively uses a number of social-media platforms such as: Facebook, YouTube, Google+, Tumblr, Podio, LinkedIn, and GoldenLine. Facebook is used mainly for communication with students and alumni, including offers of cooperation or inquiries from current and prospective students. YouTube is used for dissemination of videos from various events, conferences and seminars as well as promotional materials. Tumblr and Google+ are used mostly for uploading pictures and galleries related to school's activities. Finally, on LinkedIn and Goldenline, KU has established an official site and alumni group.

IT Application in Educational Programs of Novi Sad Business School, Higher Education Institution for Applied Studies, Serbia

www.vps.ns.ac.rs



VISOKA
POSLOVNA
ŠKOLA
STRUKOVNIH
STUDIJA
NOVI SAD

Due to the expansion of information and communication technology in the world in all areas including the education system, Novi Sad Business School is interested in following and implementing the latest technology in order to modernize the teaching process.

In order to improve the quality of educational programs, the School uses modern information technologies that contribute to the efficiency, flexibility and accessibility of educational services. Today the School has 15 SMART interactive whiteboards and there is special training for the entire teaching staff. We have installed 170 new desktop and 120 laptop computers, 30 projectors and two information kiosks that teachers and students use every day in the educational process. All classrooms and computer labs are equipped with Internet connections.

Software technologies that are applied in the School are the Microsoft Office package, Java technology and Netbeans XAMPP web server system for database design. We employ the MySQL Workbench, language modeling system - Unified Modeling Language and Wordpress as modern tools for creating web sites.

The School management plans to accredit e-learning studies and, by acquisition of the above mentioned modern equipment, the School has acquired all the technical prerequisites for this accreditation.

The platform with which the School decided to implement e-learning is Moodle which is one of the most popular and most commonly used platforms in distance learning systems in the world. It is an application, or a software package, whose main purpose is creation and maintenance of online courses on the Internet. The main activity within Moodle is course design in an electronic format. To make designing the courses easier, Moodle allows a variety of activities that support the installation and maintenance of courses. We plan to purchase several cameras that will be used for the direct delivery of instruction to students who attend E-learning studies. The school is in progress of testing the Moodle platform and trying all of the modules that will be used in the distance learning process. The previously mentioned SMART interactive boards that are placed in classrooms where students attend classes contribute to enhancing the quality and efficiency of e-learning studies.

Technology Use at Poznań University of Economics, Poland

www.ue.poznan.pl



IT servicing at the Poznań University of Economics (PUE) is the responsibility of its IT Centre. A number of IT solutions are also provided by external firms.

Electronic communication is crucial to University promotion, student enrolment and to providing current students with information.

Most young people in Poland use the Internet to seek information about study opportunities, study programs and admission requirements hence the importance of the PUE website (see further below).

The PUE's whole enrolment process is carried out via the Internet, with active participation of IT Centre employees. Their task is to ensure an efficient operation of the infrastructure, to configure and launch the enrolment system, and to support its users, i.e., both enrolment committees and applicants.

An electronic student-identity-card system provides students with cards which are combined with Poznań public transport tickets and library cards accepted by the libraries of all Poznań universities.

During their study, students receive information mainly via the system of e-Dean's office, which involves the electronic servicing of credit and examination reports, the monitoring of study results (both current and past), the provision of an internal mailing system between employees and students. The finance and accounting module allows students to monitor their individual account balances, while the grant module provides full information on grant benefits.

The PUE e-learning platform, using Moodle, provides electronic education-process support, which involves registering students for classes, posting teaching materials, evaluating students' knowledge by means of tests and quizzes, communicating with students, and generating class schedules.

Students evaluate their classes by completing an electronic questionnaire.

As far as teaching facilities are concerned, the following aspects of the education process need to be stressed:

- access to the Moodle e-learning platform, which provides students with electronic learning materials (it also facilitates communication between students and instructors, and is used in on-line courses and distance learning);
- technical facilities in the education process (classrooms are equipped with computers, projectors and other equipment for presentations).

It can be stated that the current education process is almost fully supported with electronic materials.

Alumni Fundraising Campaign at Stockholm School of Economics in Riga, Latvia

www.sseriga.edu



Ever since the inception of the Stockholm School of Economics in Riga, Latvia in 1994, its mission has been to facilitate economic growth in the Baltics by educating the brightest minds in the region. These efforts were jeopardized when, in 2008, along with the financial crisis, came an increase in tuition fees, reaching EUR 3,500 per study year. Potential students from less wealthy families had trouble covering their studies and the school and alumni community worked hard to provide scholarships for those in need, but more was needed.

To solve the need and to encourage more generous donations, the School and the Alumni Association joined forces with Funderful. Together with support from local advertising agency DDB Latvia they redesigned the donation approach like no university has done before - enriched with gaming elements, integrated with social media, all with an aim to boost competition and build a stronger community.

In the new online giving platform, the alumni had complete control over the donation campaign and all progress was fully transparent in real-time. Each time someone donated, the progress bars moved forward and the person appeared in the main network infographic, making the community stronger.

Not only were the results made visible, but also the statistics behind them. Interactive infographics were set up to drive competition between countries of origin, graduating classes, companies and individual donators, where the most generous stood out in the infographics. Participation rates and donation amounts determined the size of each country on the map and each contribution built stylized company headquarters. The most giving graduating years and individual supporters were recognized and stood-out in the system as top contributors.

The platform was supported by a social media campaign with a simple, yet clear mission: to set a European record this year and in three years' time, to beat the alumni participation rate of Stanford, which is known as the best fundraiser worldwide.

Graduates from earlier years were targeted by collecting and publishing old pictures from the school's life in the 1990s to invoke sentiments and put warm memories behind the goals. Faculty and staff members posted encouragement posters on Facebook directly from their personal profiles and drew people to the platform.

Despite being a purely online campaign targeted at a small community of 1,500 people, it raised an all-time record amount of EUR 220,000, allowing the school to grant annual scholarships to 60 students in need during the summers of 2012 and 2013. Furthermore, it increased Alumni group membership by +30%. But most importantly, it achieved a +300% growth in participation rate, making SSE Riga the most engaging school in Europe, with every third alumni donating.

See the campaign infographics with more details at https://infoqr.am/beyond_crowdfunding and the other cases Funderful has worked on since then at www.itsfunderful.com.

Digital Learning at Universiti Tun Abdul Razak (UNIRAZAK), Malaysia

www.unirazak.edu.my



With the aim of transforming our students into active learners, we use instructional material that is most effective to capture the attention and the interest of our students who are mostly auditory and visual learners. We learned that a majority are also extroverts who value learning much more when exercises require interactive participation from various groups in the community.

Digital storytelling has been a powerful learning medium for our students to exercise higher level of thinking. Oftentimes students use free software requiring minimal training, such as Windows Moviemaker and Bitstrip, to video a story or create a cartoon strip, to illustrate concepts or processes or to propose case study solutions. Students experience deep learning in the process of translating their thoughts and views into images and coherent narratives. When exercises involve interaction with external affiliates or business traders within our immediate surroundings, student learning is enriched as they are pushed to apply the knowledge in the bigger context of reality. This medium allows for seamless learning and feeds into the exploratory nature of young adults as they post comments, thoughts and become engaged in discussions outside of classroom time.

Students receive immediate and continuous feedback from facilitators, peers and the community players involved throughout the building process and at the end when their creations are published in social media such as Facebook or a blog. Such dynamics elevate students' confidence and motivation level and engages their interest in the topic beyond the requirements of the formal exercise. Nothing beats fun learning that challenges your creativity and critical thinking at the same time.

In action-based learning, UNIRAZAK students are encouraged to pursue their intellectual interests outside of the classroom and to design the activities themselves. Lectures guide only to ensure that specific learning outcomes are met. E-journals are used to record daily logs, document the dynamics in interaction and note peer reviews. At the end of the project, students write a reflection report encapsulating their discoveries during the learning journey. E-journaling facilitates students in building a rich and interactive content, in an organized fashion.

Simulations are often incorporated as formative assessment in higher level and capstone courses. With this tool, lecturers have been able to sustain students' interests and energy in consuming large amounts of information. Pre- and post-lecture simulations facilitate lecturers work in measuring students' understanding of the lecture content while early and end-of-course simulations have helped students in assessing team dynamics, traits and the development of soft skills, as well as in reviewing and evaluating their decision making.

The most commonly used technology-enhanced instructional and learning material is YouTube videos. Videos interest the UNIRAZAK visual and audio majority to pay attention, ask questions and make valuable comments. Our students also find it easier to drive home a point when they incorporate videos into their assignment presentations.

Technology-based education has played a significant role in keeping UNIRAZAK students enthralled in their learning environment. It helps to put the zing back into the thing we once thought as mundane and sleep inducing!

E-learning Platform at the Warsaw School of Economics, Poland

www.sgh.waw.pl



The Warsaw School of Economics started e-learning activities in October 2001. We created our own e-learning platform, built on the basis of open source PHP scripts and database MySQL (programming language XML). Since then we have been promoting online lectures among WSE teachers. Currently we have more than 10,000 active users of our system and more than 180 teachers engaged in online, blended or web-enhanced education.

Our Education Development Centre supplements traditional forms of education through online lectures that are provided via three e-learning platforms:

- www.e-sgh.pl – platform for WSE students
- www.e-sgh.com – platform for international courses
- www.econet.pl – platform for inter-institutional cooperation

WSE students:

- Can choose from 52 online and 5 blended courses dedicated to such areas as: corporate governance, negotiations, e-marketing, business ethics, finance, law, leadership, the European Union, quality management, development of the economy and many others.
- Are obligated to pass three e-learning workshops (which replace on campus training): Occupational Health Safety Training (BHP); Library Training; Fundamentals of Intellectual Property Protection Training.
- Have the opportunity to participate in the “Econet” e-learning project which aims at developing cooperation between five Polish public universities of economics from Warsaw, Poznan, Katowice, Cracow and Wroclaw.
- English-speaking SGH students can participate in the international online lectures Rationality and Moral Choice and Transformation in Central and Eastern Europe. The lectures are organized in cooperation with the University of Illinois, Springfield, USA. American and Polish students learn together and socialize with the help of two lecturers - one from Poland and one from the USA.

There is also the opportunity for the teacher to prepare individual presentations of the supplementary materials which complement traditional lectures and exercises in full-time, part-time, doctorate and postgraduate studies. The Education Development Centre created a special application that is called: Niezbednik e-sgh (Toolbox e-sgh, www.e-sgh.pl/niezbednik) – it enables lecturers to create their own websites with didactic materials for students. Teachers can also use a notice board to leave messages for students and introduce many other tasks, including chat, forum of discussion, calendar, assessment folder and online test generator.

Although the WSE students evaluate e-learning as a much more intensive and demanding (compared with traditional lectures), the majority of them declare that online lectures are a valuable part of the educational offer, which should be extended.