

2019 PROVOST'S LEARNING INNOVATIONS GRANTS

APPLICATION

INSTRUCTIONS

1. Complete this Application Form and save as "Lastname_Firstname_APP" (*using your name*).
2. Ask your Department Head to complete the Department Head Certification, scan and save as, "Lastname_Firstname_SIG" (*using your name*).
3. Email all documents to plig@rit.edu, **no later than 11:59pm ET, January 21, 2019**.

If you have any questions about completing this application, please contact Michael Starenko at 585-475-5035 or mssetc@rit.edu.

APPLICANT INFORMATION

This application is for a (please select *one* type of grant):

- Exploration Grant
- Focus Grant – Active Learning Across All Course Modes

Principal Applicant Name: Martin Zagar

Faculty Title: Assistant Professor Email: martin.zagar@rit.edu Phone: +385915666231
(Full-time only)

College: GCCIS Department: RIT Croatia

Department Head Name: Irena Guszak Cerovecki Email: irena.guszak-cerovecki@croatia.rit.edu

Others involved in the project (if any): Nikola Draskovic, Adjunct professor at RIT Croatia

Project Name: Internet Marketing Simulation

Total Funds Requested (*as calculated on the budget worksheet on the next page*): \$4976.00
(requests of \$1,000 to \$5,000 will be considered)

BUDGET

Complete the table below to calculate your budget

- The total shown on this worksheet must match the “Total funds requested” in the Applicant Information section on page 1 of this application form.
- If awarded, additional funds will be provided to cover any benefits and ITS expenses associated with the salary budget requested.
- Note that any equipment or other materials purchased with grant funds are the property of your department and revert to the department after your project is completed

Personnel	Purpose/Justification	Amount
Full-time Faculty/Staff		
Assist. Prof. Martin Zagar, PhD	Additional work with WMC students on simulation outside the regular course schedule through advising on IT technologies, approaches and frameworks \$20/hour * 18 hours/semester = \$360	\$360
Adjuncts, Part-time Faculty/Staff, Summer Salary		
Nikola Draskovic, PhD	Additional work with IB students on simulation outside the regular course schedule through advising and business logic developing \$20/hour * 18 hours/semester = \$360	\$360
Personnel Total		\$ 720.00
Equipment	Purpose/Justification	Amount
Equipment Total		\$ 0.00
Travel	Purpose/Justification	Amount
Connect Digital Conference in Zurich, Switzerland, travel from May 21-24 2019	Current early bird registration 475CHF=\$476USD, \$280 plane tickets (Skyscanner), \$420 accommodation in 3*hotel (Booking.com), 3*\$50=\$150 daily travel allowances	\$1326
World Social Marketing Conference in Ottawa; Canada, travel from September 31 - October 3 2019	Registration is not yet open, but previous year early bird registration was app \$510, \$1500 plane tickets (Skyscanner), \$620 accommodation in 3* hotel (Booking.com), 3*\$50=\$150 daily travel allowances	\$2780
Travel Total		\$ 4106.00
Other (Specify)	Purpose/Justification	Amount
License	License for Stukent Mimic Pro Simulation to be used as a benchmark	\$150
Other Total		\$ 150.00
Total Award Requested		\$ 4976.00

STATEMENT OF UTILITY (two pages maximum)

Using the evaluation criteria outlined in the [Proposal Evaluation](#) section of the PLIG website, please provide an overview of the project you are proposing, including:

- Project objectives
 - An explanation of the teaching/learning problem(s) it is designed to address
 - An explanation of the significance of the project to student outcomes and/or the student experience.
 - A brief description of how the project integrates with activity already underway at RIT in a priority area and/or how this approach has been successfully used at RIT already.
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In today's world when we talk about promoting products and services, an online presence is crucial to helping potential clients and customers to find all important data about your offer. Different tactics and strategies enable marketers to fully leverage the Internet, which is critical to an organization's overall strategy. This process is called Internet marketing and it uses different IT technologies, platforms and frameworks for customer segmenting and targeting, search, analytics and product positioning. RIT is providing insight about Internet marketing principles through course MKTG-320 Internet marketing for IB (International Business program) students at RIT Croatia international campus (instructor Nikola Draskovic), with defined course objectives and learning outcomes where students have to:

- Explain how the Internet and digital technology offer benefits and challenges to consumers, business, marketers, governments and society.
- Understand the fundamentals of Internet marketing and the online marketplace.
- Demonstrate the ability to design and analyze Internet advertising and promotional strategies and tactics.
- Develop an understanding of the Web 2.0 marketing strategies and tactics.

60% percent of MKTG-320 course involves hands-on exercises, web surfing and learning activities that show application of the theories and currently instructor is delivering these concepts using different platforms and applications that are not consistent. Our research among the students identified the need for application that would enable all aspects of Internet marketing simulation in digital world surrounding it, to boost user (student) experience.

In many ways, social media optimizes the initial idea of Internet: collaborating and sharing content, ideas and information. Social media is behind the explosion of content on the Internet, as various channels have allowed anyone with an Internet connection to create and share content easily and for free and is usually referred as Web 2.0. Technological background of Web 2.0 and development of Web applications is RIT Croatia WMC (Web and Mobile Computing program) students also experience with course objectives of ISTE-442 Web App Development course (instructor Martin Zagar), where they need to design and develop web application project as a proof of understanding and knowledge needed for secure, cross-platform, user-oriented web applications.

Main objective of this proposal is to develop the Internet marketing simulation in a form of a web application, jointly by students and instructors on MGMT-320 and ISTE442 courses, which will enable for IB students to learn about the digital marketing through gamification, and for WMC students, to build the web application that will be used by their colleagues, giving them immediate and real feedback about the user experience, responsiveness and application features from the first hand (many of WMC students will be oriented on building business application once they graduate, so this experience from their colleagues from business program could be really valuable since they might be their future business partners and business users, so they will already have insight about their preferences).

Proposed solution will include WMC students to design and develop web application for Internet marketing simulation, as a part of grade for ISTE-442 course on RIT Croatia international campus, and IB students that will partly design business logic and partly use such application for hands-on exercises and simulation of using of four main digital marketing tools – social networking, content creating and sharing, search engine marketing and display advertising. Due to the modular web application design approach, additional tools can be added in future.

Based on the current students' feedback on both courses, MGMT-320 and ISTE-442, students would like to have more real-world and real-time examples and as much as possible real-world experience. With this Internet marketing simulation, the aim is to provide for both groups of students' knowledges and experience they need. They will have better understanding of fundamentals that are demanded through course topics in more interesting and more funny way, and they will learn by examples instead of theoretical descriptions and just sharing instructors' experiences. In this way our proposed simulation will enable active learning not in just one, but two courses, in two different programs and we think that after efficiently adapting simulation parameters this will present effective model for redesign of both courses in order to be delivered in blended way (theory will be delivered face-to-face and hands-on examples for both program students could be delivered by on-line Internet marketing simulation web application).

Further on, we will measure student's satisfaction, based on students' surveys, and in case of positive feedback (in which we have no doubts), it is possible to adopt this simulation to all RIT international campuses and to involve different market dependencies worldwide in most easy way. This is crucial because business and marketing principles differ around the world and are not the same in Croatia, US, China, Dubai or Kosovo. In this way it will be easy to simulate Internet marketing all over the world trough administrator's interface, and adopt specific market parameters, and even the students from Croatia would be able to be better prepared to face real world market specifics in US or Dubai, for example. Students for other campuses could be easily involved in development of further features of this web application for Internet marketing simulation.

STATEMENT OF CREATIVITY (three paragraphs maximum)

Provide a brief description of how this is a novel approach, or a new application of an existing mode or model of teaching and learning, and/or research about how teaching and learning represents a new paradigm.

Joint efforts of both WMC and IB students will enable their learning by doing, each by its own focus – for WMC students designing and developing the web application, for IB students the business logic and learning Internet marketing principles by using simulation that will be close to the real world as much as possible. This learning by doing approach already exists in different Internet marketing simulations, such as Stukent Mimic Pro Simulation which we will use as a benchmark when initially settings parameters of our application, but they are not fully adoptable to all market dependencies, which our application will be. Our application will provide a high level of customization through the admin tools.

Also, our application will be able to run in multi-user mode, so students (or teams of students) will be able to compete with each other. This will enable the gamification of learning process which is one of the basics for active learning, one of the pillars of this year's RIT PLIG Focus grant. IB students will get better understanding of the Internet marketing principles not only by using this application, but also by partly designing the business logic (other part will be on the instructor on this course), so they will construct the knowledge and understanding. WMC students will build the real-world application (and not usually some in-class application no one uses after they complete the course), will be able to interact with the real users (IB students) about the user experience of their application (usually they are able just to get instructor's feedback, which is more theoretical). This both will boost the way how they construct their knowledge and understanding. With this overall simulation approach their later probability of failure in their businesses will be lower.

According to revised Bloom's taxonomy, creation this new and original Internet marketing simulation will be able to cover all six cognitive processes (which is in our case valid for both IB and WMC students). IB students will get an insight in strategic knowledge and conceptual knowledge by using the application, and knowledge of Internet marketing specific techniques and methods, knowledge about the terminology and knowledge about the criteria for determining when to use appropriate procedures when designing business logic in background of this application. WMC students will acquire knowledge of web application development skills and algorithms when generation and coding the application, knowledge about the classification when acquiring the data about the application from IB students and knowledge about the terminology in building the web applications from their instructor.

STATEMENT OF EFFICACY (two pages maximum)

Provide a brief description of the experiment/research design, methodology, and methods of data collection and analysis you will use to gauge efficacy.

Our Internet Marketing simulation web application will be divided into several views (steps).

1. Planning stage - setting-up budgets, keywords and targeting options

Each student or team will first have to decide how much virtual money to spend in one turn. The total simulation budget will be predefined. The weekly budget will have to be split between products and different communication channels/activities. The spending threshold per channel/activity will be predefined. i.e. spending less than the threshold value will have no impact. Furthermore, more focused spending (e.g. limited to one product and/or less channels/activities) is more efficient. In example we will use here to explain the solution let's say we have three smartphones with different features and price tags.

2. Execution of the plan (daily or weekly turn) - students will be able to make some low-scale changes in order to optimize the promotional effort

Each student or team will have to select keyword (or even multiple keywords, depending on the channel) per channel/activity. This is the main topic communication will be focused on. Keywords will have different impact on the efficiency of promotional activities depending on the product features, target audience preferences and proposed budget. Obviously, synergy across channels can be achieved if communication is more focused (e.g. one keyword is used in all channels). In other words, consistency is crucial. Students/teams will be limited here with the drop-down menu. There will also be targeting options. Targeting will primarily refer to the promotional activities and it will be platform specific. Proper combination of message strategy and targeting is essential for success. For the content creation, targeting will improve its quality score. The content quality score can improve promotional efficiency.

3. Reporting - once the round/turn is finished, students will receive formal reports (digital platform insights/analytics) and some less formal (sales force feedback). For the market report (containing competitor's numbers and consumer preferences), students will have to spend certain amount of the virtual money.

Over the course of simulation certain random events may appear, e.g. need for sales promotion support, good cause sponsorship/promotion, distribution issue with the product, technical issue with the product. Students will have to react accordingly (i.e. focus communicational efforts to solve the problem or support certain activity). If the event will be ignored, sales will/can suffer – reflection to the real world. Before starting with the "real" simulation, students will experience the simulation through two introduction rounds. The students' communicational effort efficiently will be significantly influenced by competitor's activities in case of overlapping strategies/products.

There are several goals in this simulation:

- The main goal is to increase sales for each of the three models of a product (e.g. smartphone).
- Additionally, students should increase brand loyalty/image because it will have positive impact on sales in the following turns.

In the simulation, there are three models of a product. However, the budget is limited and the available funds cannot support heavy promotion of all three products at the same time. Ideally, only one model should be promoted within a turn (day or week). Also, too much focus on just one can potentially have negative impact on the other models' sales. Players should not try to utilize all channels at the same moment because budget cannot support that.

However, certain combinations are good, e.g. web content + PPC and/or social media. If player tries to promote all three models at the same time, there will be no impact. For example, if this occurs three or more times in a row, sales should decline for 5% each time, just like it is expected in the real world.

Based on the outcomes of the simulation, IB students will learn in active way about the principles of the Internet marketing through the game. Also, it will be possible for them, once they will gain needed experience, to adjust the business logic behind the simulation, providing strategic knowledge about the Internet marketing. On the other hand, WMC students will learn how to build web application also through active learning approach. Web software development is usually thought of as being either client-side (for example with JavaScript) or Server-Side (PHP, ASP.NET or similar technology). In designing and developing web application for Internet marketing simulation, students would need to combine these two technologies are used together to create the best possible web-based user experience and then, together with IB students, to integrate business rules into the application. The challenge for WMC students would be the fact that application should be platform independent so it can be used on different mobile devices, and they would also need to write programs and GUIs using technologies such as SVG, JavaScript, PHP, and other scripting environments, based on data acquired directly from their IB colleagues. This is much different from standard learning approach where WMC students only interact with their instructor and get all feedback about their application on academic, rather than the real-world level.

ADDITIONAL CONSIDERATIONS

Please address these questions, if needed.

Will your project require assistance for extensive or unusual media, multimedia, simulation, and/or software development? If so, please explain?

No.

All courses offered by RIT must be accessible to students with disabilities, according to Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (rit.edu/studentaffairs/disabilityservices/info). Is your proposed teaching approach accessible to all students, with reasonable accommodation? If not, please explain.

Yes.

RIT abides by the Family Educational Rights and Privacy Act of 1974 (FERPA), which prohibits instructors from making students' identities, course work, and educational records public without their consent (rit.edu/xVzNE). Will any data gathering or sharing for your project raise any FERPA issues? If so, please explain.

No.

DISSEMINATION AGREEMENT

By completing this grant application, I agree to provide the materials and services described here, in support of disseminating what is learned from this project to the RIT community.

I also agree to return all/a portion of the funds that I receive for this project to RIT if I fail to complete or provide the materials described here:

- Full Project Plan (*including roles and responsibilities, milestone dates, and pertinent project details*)
- Preliminary Findings report (*may include experiment/study design, lessons learned, initial data collection, and/or literature review summary*)
- Participation in an ILI/TLS Preliminary Findings Roundtable dissemination event (*share and discuss your preliminary findings with your PLIG cohort*)
- Final Summary of Findings (*including data collection, lessons learned, implications for further study, and which may be in the form of an article abstract, conference presentation outline, or short report*)
- Final budget accounting (*reconciliation of budget provided with your application and the actual project expenses*)
- Participation in an ILI/TLS PLIG Showcase dissemination event (*present a poster or other display at the annual Showcase*)

By submitting this application, I accept this agreement. MZ (*applicant, please initial here*)

TIMELINE AND TASKS

Please indicate any variances to the planned PLIG 2019 schedule as described in the above Dissemination Agreement and the reasons for this variance. *If you do not intend to deviate from the schedule, you may leave this section blank.*

Task	Date	Proposed Variance and Reason
Full Project Plan submitted to TLS	August 16, 2019	
Preliminary Findings report submitted to TLS	January 10, 2020	
Participation in an ILI/TLS Preliminary Findings Roundtable dissemination event	February, 2020	
Summary of Final Findings report submitted to TLS	August 21, 2020	
Final Budget Accounting report submitted to TLS	August 21, 2020	
Participation in an ILI/TLS PLIG Showcase dissemination event	November 2020	

DISSEMINATION PLAN (*optional*)

Provide details about the journals, conferences, shows, or other external vehicles with strong potential for dissemination of your results (in addition to the ILI/TLS Preliminary Findings Roundtable and PLIG Showcase dissemination events). Include supporting documentation, such as preliminary interest or acceptance, with your application, if available. *(Please note that special consideration will be given to proposals that have a defined opportunity for external dissemination, such as an academic journal or professional conference.)*

- We plan to attend Connect Digital Conference, May 22, 2019 in Zurich, Switzerland (<https://ecommerce-connect.ch/>) to elaborate our idea to the digital marketing industry experts. This is one of the biggest digital marketing conferences and it is scheduled right after the end of Spring term, so our application should be finished by that time and we based on the feedback we get, we will be able to adjust the parameters and business logic.
- After attending Connect Digital Conference and fine tuning of our application, we plan to publish a conference paper on some digital marketing conferences during Fall 2019, such as World Social Marketing Conference in Ottawa, October 1-2 2019 (<https://wsmconference.com/ottawa-2019>) or 2020 AMA Winter Academic Conference organized by American Marketing Association.

DEPARTMENT HEAD CERTIFICATION

I support this PLIG application and verify that the principal applicant is a full-time faculty member in good standing in my department.

Principal Applicant Name: Martin Zagar

Department Head Name (PRINT): Irena Guszak Cerovecki **Email:** irena.guszak-cerovecki@croatia.rit.edu

Department Head Signature: _____ **Date:** _____

NOTE: When signed, please scan and email with your Application Form to: plig@rit.edu