Using of Information Communication Technology Tools by the Students with Entrepreneur Intent

GREGOR JAGODIČ
International School of Social and Business Studies, Slovenia
gregor.jagodic@issbs.si

Nowadays, young people are more familiar with the use of computers, different applications and ICT (Information Communication Technology) tools available on the Web. Approach to different resources on the Web offers them various possibilities for the creation of their own business and supports the realization of their entrepreneurial intention. In our study, we analyzed entrepreneurial intention of students enrolled in one higher education institution in Slovenia in two consecutive study years (2014/2015 and 2015/2016). We also analyzed the usage of ICT tools for acquisition of additional knowledge and skills needed for the creation of new companies and new working places to enhance the employability of young people and students. In the study, we also focused on the level of knowledge, personal skills, needs and availability of different ICT tools, all of which depend on various factors (e.g. computers, internet connection). In the study, we found out that young people understand the current economic situation, and from that mainly generate their entrepreneurial intention. We found out that they mostly use ICT tools which are free of charge and easy to use such as E-classroom, E-books, Social Media and the Internet.

Key words: entrepreneurship, entrepreneurial intention, ICT tools

Introduction
Young people, finishing the schooling, may be faced with the problems related to the entrance into the labour market. One of the most problematic issues that may appear nowadays is a lack of the jobs. The latter is an issue in many of the developed countries as well. The young, educated people should, therefore, start thinking, how they could obtain adequate income for living.

As they cannot get a job, many young people try to create their job opportunity by themselves. Such solution may be the best way to deal with the problem of potential unemployment either on the individual or societal level. However, due to the current economic situation, it is not easy to enter the labour market following the entrepreneurial
path, especially in the case of lack of work experience. Today’s society demand quality products and services requiring a lot of technical knowledge, sophisticated production procedures as well as low price. In such market conditions, the new entrepreneurs should find their market niche, in which they can offer their unique business ideas, products, and services. For that reason, they need relevant knowledge and skills, which they learn during the study as well as through the Web.

In recent years, we have been facing the quick development of information communication technology (ICT). Most young people are familiar with such technological opportunities. They are also familiar with the ways of using them, and aware that there is a lot of knowledge, business experience, and different entrepreneurs’ skills available on the Web. They often try to use such resources (Banker 2003, 1–27; Youndt et al. 2004, 335–61; Power 2005, 554–72; Vukasović, 2012, 492–8). The young people usually know that ICT tools can help them to get the needed knowledge and skills, and that can even enable them to learn from the mistakes of other entrepreneurs as well. Indeed, it is possible to find quite some ICT tools on the Web, which can be helpful in developing skills of successful entrepreneurs. Some of those solutions are also reachable free of charge.

The economic situation in contemporary societies in many cases discourages the young people, who want to become an entrepreneur. For example, in Slovenia, we do not have a clear strategy on how to encourage the new entrepreneurs, neither have we known what kind of support they may need or what kind of support we can actually offer them. New entrepreneurs need a supportive entrepreneurial environment, relevant working experiences, a sound business idea as well as a strong desire to create their own business. Besides, they usually have to invest a lot of time and effort in finding the right information and appropriate ICT tools, which can help them in the realization of their business ideas.

The aim of the paper is to analyze entrepreneurial intention of Slovenian students and find out the reasons in modes of implementing the available ICT tools the young people usually use for developing the business idea. We organized paper in sections. In the second section, we explain the concepts of entrepreneurship and entrepreneurial intention, in the third section, we present the ICT tools and their use, and in the fourth section, we explain the connection between the entrepreneurial intention and usage of ICT tools. In the fifth section is a short description of research methodology followed
Entrepreneurship

Entrepreneurship means different things to different people. However, in general, we can conclude that it means managing of and turning the business idea into a profitable business. The most common definitions of entrepreneurship are as follows:

- Knight (1921) and Drucker (1970) note that entrepreneurship is about risk taking.
- Drucker (1985) defines entrepreneurship as an act of innovation involving existing resources combined with new wealth-producing capacity.
- Shane and Venkataraman (2000, 217–26) believe that the field of entrepreneurship includes the study of the business opportunities’ sources, the processes of discovery, evaluation and exploitation of business opportunities as well as the groups of individuals, who discover, evaluate and exploit these business opportunities.
- Ireland, Hitt, and Sirmon (2003, 963–89) define entrepreneurship as a context-dependent social process through which individuals and teams create wealth by bringing together unique packages of resources to exploit business opportunities.
- Commission of the European Communities (2003) defines entrepreneurship as a mind process to create and develop economic activity by combining risk-taking, creativity, and/or innovation with management, and in a new or an existing organization.
- Onuoha (2007, 20–32) notes that entrepreneurship is a practice of starting new organizations or revitalizing mature ones as a response to identified business opportunities.

Kirzner (1973) believes that the entrepreneur recognizes and acts upon profit business opportunities. Schumpeter (1965) defines ‘entrepreneurs as individuals who exploit business opportunity through technical and/or organizational innovation.’ Hisrich (1990, 209–22) defines an entrepreneur as ‘someone who demonstrates initiative and creative thinking, can organize social and economic mechanisms to turn resources and situations to practical account, and accepts risk and failure.’ Bolton and Thompson (2000) define an entrepreneur as ‘a person who permanently create, innovate or build something with value where they discover business opportunities.’ Mostly, authors
describe an entrepreneur as a person who owns and leads a business.

Societies, entrepreneurial education, support by different institutions and, in the last period, also the ICT tools encourage entrepreneurial intention (Lans et al. 2008, 363–83). European Commission (2008) mentions that the EU countries should encourage entrepreneurial intention, create supporting institutions and develop different ICT tools to promote new businesses and start-ups. Jagodič and Dermol (2012) also describe some supporting institutions and supporting ICT tools for helping new entrepreneurs to create and develop their businesses. Very often, the success of entrepreneurial activity is based not only on their entrepreneurial intention but also on how the new entrepreneurs perceive the business opportunity as well as their innovative capabilities and available creative resources.

Authors define entrepreneurial intention from different points of view (e.g. personal motivation, attitude, marriage, social situation). The concept of entrepreneurial intention is based on the model of social learning (Bandura 1977), the model of the entrepreneurial event (Shapero and Sokol 1982, 72–90) and the theory of planned behaviour (Ajzen 1991, 179–211). In all the cases, essential elements mainly relate to personal conduct. Different authors (Nabi et al. 2006, 373–85; Wu and Wu 2008, 752–74; Guerrero, Rialp, and Urbano 2008, 43–50) link the entrepreneurial intention with a situation in which people wish to start a business as a new firm as well within an existing organization.

Some of them (Turker and Selcuk 2009, 142–59; De Jorge-Moreno, Castillo, and Triguero 2012, 409–25) express the importance of entrepreneurial education for the strengthening of entrepreneurial intention. Individuals with more extensive formal education seem to have the stronger entrepreneurial intention (Arenius and Minniti 2005, 233–47; Turker and Selcuk, 2009, 142–59). Pruett et al. (2009, 571–94) notes that the knowledge might be one of the main factors that may affect entrepreneurial intention among students. Specifically, the lack of experience, abilities, and skills in the field of management, administration, accountancy, business seem to be important when considering strengthening the entrepreneurial intention. The study by Linán, Rodríguez-Cohard and Ruenda-Cantuche (2011, 195–218) points out that the main factors affecting entrepreneurial intention are personal attitude and perceived behavioural control. Sánchez (2011, 239–54) gets similar research results noting that the main factors are personality traits, risk acceptance, and self-efficacy.

Every individual should set the goals and decide which activities,
experiences, and behaviour can help him or her to develop the business idea (Bird 1988, 442–53; Boyd and Vozikis 1994, 63–77). On the individual level, entrepreneurial intention effects personal beliefs, social, political, cultural and economic environment (Fishbein and Ajzen 1997, 488–543).

**ICT Tools**

We can find different understandings of ICT tools that relate to the understanding of the ICT. The latter can be split into information technology (IT) and communication technology (CT). IT includes all kinds of technology for data analysis and manipulation of data and information (e.g. computers, data transfer equipment, software equipment), while CT includes solutions for transfer of data or information (e-mail, phones, internet network). Senn (1997, 12–20, 25) describes the concept of ICT as the ability to create and forward the data and information with the use of essential components, such as networks, mechanical and software equipment, etc. Among ICT tools, we can also count different software and programs for learning, for getting knowledge and skills, video presentations explaining how to do something and the possibilities to collect the information.

Recently, the development of ICT tools and technology is extremely rapid and offers new business opportunities and better life quality (Bučar 2001). With the use of ICT tools, we can increase productivity and decrease costs (Hengst and Henk 2001, 129–33). Pinterič and Grivec (2007, 33–4) believe that contemporary ICT tools cause a significant change in the way of communication. Lajoie and Azevedo (2000, 247–71) note that ICT tools can be a useful tool for teaching and learning because the students can solve potential business situation and problems and develop their cognitive skills. Other authors note (Campbell et al. 2010, 505–11; Hsu, Wang and Runco 2013, 314–24) that the students can develop cognitive skills through the use of ICT tools as well as create critical thinking to solve complex problems.

McFarlane and Sakellariou (2002) believe that the students like to use the ICT tools during the learning process and study. Nowadays, the ICT tools for learning are readily available, and it is quite easy for the students to find them, to get the information. Some of those ICT tools offer access to knowledge bases, and business ideas exchange platforms. Nowadays, ICT tools provide the opportunity to work together with other entrepreneurs and learn how to solve the problems (Linn 2004, 9–26).
Entrepreneurial Intention

ICT tools may have a substantial impact on the entrepreneurial intention. Findings of Migisha (2011, 220–35) show that ICT tools are necessary for entrepreneurial and personal skills development and may help small entrepreneurs to grow and generate new working places, especially through innovations. The Internet as a part of ICT tools fundamentally changes how people discover, access, get and use their knowledge and skills, and exploit the business opportunities.

Google.com is one of the most successful entrepreneurial stories related to the use of ICT tools (Eduardo 2006, 320–38). Some other authors (e.g. Kollmann 2006, 113–28; Austins and Tygris 2010, 61–83) emphasize that ICT is a crucial tool and useful especially for the new entrepreneurs as it may make it easier for them to start an online business due to lower starting expenses. Extremely fast flow of electronic information allows the creation of extensive networks where any member of the network can get all the necessary skills, support, and advice, how to react or solve critical situation (Evans and Wurster 1997). From that reason, we can conclude that ICT tools may have a direct influence on the business development and innovation.

Zhu and Kraemer (2002, 444–63) claim that development of entrepreneurship and implementation of ICT tools importantly depend on availability and usefulness of ICT infrastructure. The latter is especially important for new entrepreneurs. They need to learn how to find the right tools as well as how to use them. ICT tools and ICT infrastructure provide a variety of platforms and applications, which can help the new entrepreneurs to grow their business by learning and getting new knowledge and additional entrepreneurial skills needed to start and develop the business. ICT tools can provide the new entrepreneurs also with business opportunities to develop their business ideas further.

To recognize a business opportunity and to formulate and exploit the business idea, the new entrepreneurs need appropriate competencies. Answers.com (http://www.answers.com/topic/competence) defines competence as the ability to perform or to do something. Lans et al. (2008, 363–83) define competence as personal traits and the combination of attitudes, skills, knowledge, abilities and usage of the acquired knowledge. New entrepreneurs can use the ICT tools for the development of their competencies. They can be developed either during the schooling or later through life experiences (Adeyemo 2003). New entrepreneurs should have a broad
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range of competencies such as intuition, creativity, initiative, goal-orientation, responsibility, communication, research and management skills, optimism, skills of planning, organizing and coordinating activities, willingness to take risks and networking creating skills (Swedberg 2000, 7–44; Dougherty 2014). Such a combination of competencies may help them to understand the business environment better and even more easily use the ICT tools. ICT tools enable the connections and networking between and among the different information sources and ICT tools (Hynes and Richardson 2007, 732–44).

**Empirical Study**

**RESEARCH METHODOLOGY**

The target group which we involved in the study consisted of first Bologna cycle students attending the course of Entrepreneurship in one of the higher education institutions in Slovenia during the academic year 2014/2015 and 2015/2016. The sample consisted of 129 students, from which 68 students attended the course in academic year 2014/2015 and 61 students in academic year 2015/2016.

The questionnaire used in the survey consisted of different open and closed questions on demography, the social status of the students, entrepreneurial intention, working skills, abilities and knowledge about entrepreneurship, risks taking and ICT tools, which the surveyed students use.

For collecting the data, we used the web-survey-tool 1-ka, which allowed us to send the questionnaires to the participating students via e-mail. In the analysis, we used some basic descriptive statistics (proportions, percentages, and means).

About 66% of respondents were male. The average age of respondents was 23 years. About 20% of the respondents are employed, but almost all of the rest of the respondents work in free time (student work). Just 3% of the respondents run their own business.

**ANALYSIS**

With our research, we want to find out about the entrepreneurial intention of young people in Slovenia. We find out that 27 (21%) of the respondents will for sure establish their own business, 31 (24%) of them will probably establish their own business, 48 (37%) of them are thinking about establishing their own business, and rest of the respondents (23, 18%) will probably not establish their own business. On the 5-point Likert scale, the mean value of the responses is 3.43, which indicates that the respondents may have stronger en-
entrepreneurial intention comparing to other population. In figure 1, we present the detailed data from our survey.

There are 26 (20%) of the respondents who are completely willing to take a risk for the realization of a new business opportunity. 40 (31%) of them are very willing to take a risk for the realization of a new business opportunity and 39 (30%) of them just willing to take the risk. The rest of the respondents (24, 19%) are not willing to take the risk to realize a new business opportunity. In this case, we use Likert 5-point measuring scale (1 – I am not at all willing to take the risk, 5 – I am completely willing to take the risk). The mean value of the responses is 3.5, which means that the score is above average. We can say that more than 80% of the respondents are willing to take a risk for realization a new business opportunity (figure 2).

24 respondents (19%) seem to be always and everywhere treating the problems as opportunity, 55 (43%) of them react in such a way in most occasions, 43 (33%) of them usually treats problems just as an opportunity, and only 7 (5%) respondents do not treat the problems in such a way. Again, we use 5-point Likert scale (1 – I do not treat the problems as an opportunity at all, 5 – I always and everywhere treat problems as an opportunity). The mean value of the responses is 3.74. The latter means that the score seems to be a bit above the average and is rather high. We conclude that almost 95% of the respondent treats the problems as being business opportunities (figure 3).

In our research, we realize that the respondents are quite familiar with the use of different ICT tools. Almost 93% (120) of them knows about Social Media (like Facebook, Twitter), 92% (119) of the respondents knows about E-books, for Web pages know 85% (110) of them,
and 83% (108) of the respondents knows about YouTube and video lectures on the YouTube. 73% (94) of the respondents knows about Information Databases, 72% (93) of them knows about the Business Idea Exchange Platforms, and 68% (88) of the respondents knows about the Business Plan Simulators and at the time about the E-classrooms. Just 64% (83) of the respondents knows about Crowdfunding and the Start-up Platforms, and 56% (72) of them knows about the Business Plan Template Forms (figure 4).

The most commonly used ICT tool seem to be Web Pages. They are used at least sometimes or more often by more than 98% (127) of the respondents. E-books are used at least sometimes or more often by 97% (126) of the respondents, pretty much the same as the Social Media, and the E-classrooms (96%, 125). Around 89% (115) of the respondents uses the YouTube, 74% (96) of the respondent uses the Information Databases, 71% (92) of the respondents uses the Business Plan Templates, and 61% (79) of the respondents uses the Business Idea Exchange Platforms; all of them claim that they use the tools at least sometimes or more often. From the research results, we can see that Crowdfunding and Start-up Platforms, and Business Simulators are used less frequently – the are used at least sometimes or more often in just around 30% (39) of the cases (table 1). The Business Simulators are usually payable. For that reason, the new entrepreneurs do not use them very often. The same goes
TABLE 1  Mostly Used ICT Tools by Respondent

<table>
<thead>
<tr>
<th>ICT tools</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web pages</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>50</td>
<td>62</td>
</tr>
<tr>
<td>Platforms</td>
<td>34</td>
<td>16</td>
<td>48</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Social media</td>
<td>1</td>
<td>3</td>
<td>20</td>
<td>32</td>
<td>73</td>
</tr>
<tr>
<td>Business plan template</td>
<td>23</td>
<td>14</td>
<td>59</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>E-classroom</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>39</td>
<td>78</td>
</tr>
<tr>
<td>YouTube video lectures</td>
<td>5</td>
<td>9</td>
<td>59</td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>E-books</td>
<td>0</td>
<td>3</td>
<td>10</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td>Information databases</td>
<td>2</td>
<td>31</td>
<td>68</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Crowdfunding and start-up platforms</td>
<td>53</td>
<td>37</td>
<td>23</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Business simulators</td>
<td>62</td>
<td>28</td>
<td>11</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

NOTES   Column headings are as follows: (1) never, (2) rarely, (3) sometimes, (4) very often, (5) always.

![Figure 5: Importance of Free of Charge ICT Tools](image)

for the Crowdfunding Platforms, which are mostly used by the new entrepreneurs, who develop the business idea and want to enter the market. With the use of Crowdfunding Platform, they try to raise initial money to start the business.

By the opinion of 66% (87) of the respondents, it is very important that ICT tools are available free of charge. For 20% (26) of the respondents it is important that ICT tools are available free of charge, and for 7% (9) of the respondents, it is neither important nor unimportant that ICT tools are available free of charge. Just for 6% (7) of the respondents, it is not important, or it is irrelevant that ICT tools are available free of charge. We can see that for almost 94% (122) of the respondents it is either less important, important or very important that ICT tools are free of charge. To measure the importance of the ICT tools, we used 5-point Likert scale (1 – irrelevant, 2 – not important, 3 – neither important nor unimportant, 4 – important and 5 – very important). The mean value of the responses is 4.48. The result is rather high leading to a conclusion that the respondents wish free of charge ICT tools (figure 5).

Around 87% (112) of the respondents is not prepared for paying to use the ICT tools. Just 13% (17) of the respondents is prepared to
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<table>
<thead>
<tr>
<th>Yes</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>112</td>
</tr>
</tbody>
</table>

**Figure 6**  Preparation for Paying for Use ICT Tools

pay the use of the ICT tools (figure 6). As we can see from the last two figures, it is very important that ICT tools are available to the respondent free of charge.

### Findings and Discussion

As we can see in our research, the young people with stronger entrepreneurial intentions are more familiar with different kinds of ICT tools that can help them to check their business ideas or start a new business. It is crucial that they search for possible business opportunities and sources of knowledge, and additional information, which may be helpful in developing their business ideas. As we discovered, they mostly focus on a problem, how to collect the money to start their own business and forget about other important issues. Some of them also regularly check for the business opportunities in different Crowdfunding and start-up platforms.

By the research, the young people mostly use free of charge ICT tools. Namely, they do not have enough money to pay for the usage of services like Business Simulators or Business Plan Tools, which are usually not free. They may have limited financial capability also due to relatively high costs of living and the absence of a regular job. Nevertheless, the majority of young people live with parents and other members of the family, who can provide them with support and financial resources. We can conclude that free of charge ICT tools give the young people the opportunity and possibility to get additional knowledge and skills. With the creation of supporting network, they can better develop their business idea and more successfully start a business.

We believe that it is important for the young people to become highly aware of the economic situation. Besides the awareness, they should also be inventive, especially if they want to create their working place. Strong entrepreneurial intention shows that they have the business ideas, but more often, the problem is the money. Namely, some of them already have some entrepreneurial experiences as their parents may own a company, and they see the world with different eyes. On the other side, as entrepreneurs, they are forced to look for investors to develop and build a prototype of the product or service, prepare a persuasive presentation to convince the potential
investors about their product or services, etc. For all of those activities, they need financial resources.

Nowadays, the society might still not be prepared to help the entrepreneurs to develop their entrepreneurship potential. There are several reasons for that. For example, sometimes they have too futuristic business ideas, which an average user or consumer cannot imagine and understand. Despite this, the society has to develop the models for helping new entrepreneurs to develop their business models and business ideas.

**Conclusion**

The economic crisis and business situation in societies force the young people to think about the ways to get a job and make an everyday living. Nowadays, it is not easy to find a job, especially if the unemployment rate in a country is high. In many cases, if they want to start a business career, they have to be able to create their working place, which mostly means start their own business.

Our research shows that the young people have relatively high entrepreneurial intentions and the mean about entrepreneurial intentions was 3.43 on the 5-point Likert scale. Approximately 45% of respondents choose the grades of 4 or even 5 when evaluation the possibility to start their own business. They are also very willing to take risks, and the mean about taking risks was 3.50. As indicated in the survey, the majority of the respondents treat the problems as a business opportunity, and that is an entrepreneurial way of thinking (the mean was 3.74 on the Likert scale from 1 to 5).

However, the young people are mostly aware of the shortage of business experiences and lack of the necessary knowledge on creation and management of the business. It is logical that some of them try to find a solution for starting a business. Therefore, they try to find and use various ICT tools by which they may get additional information, skills, and knowledge.

The results of our research show that young people are familiar with different types of ICT tools. Nevertheless, they mostly use tools like E-classroom (as a part of teaching activities in the courses like Entrepreneurship and Marketing), E-books, Social Media, and Internet Web Pages. One of most often used ICT tool is also YouTube. In YouTube, they can get various information through downloadable videos, which make it possible to look as many times as they wish. A minority of young people use different Business Plan Templates as well as Business Simulators. Some of them have already started to look for investors to support the realization of their business ideas,
but just a few of them are well prepared for starting a business. The latter means that they have to prepare a final version of the product or service, define the target customers and markets, and approaches to reach them. Besides, they should be able to convince the potential investors to put the money into their businesses.

In the conclusion, we can note that it is important to develop and promote different ICT tools as well as make them free of charge for any user. The ICT tools make it possible to collect information, knowledge, skills and business ideas about market approaches to find and target the right customers, as well as build networks and promote the creation of new working places by which all the society can benefit.

We prepare an international research in which we are going to investigate entrepreneurial intentions of the young people from different countries. Especially, we want to identify ICT tools, which they use for the preparation of their business models and skills, knowledge, and abilities they already have. We would also like to find out where the young people see the problems, what kind of entrepreneurial support should be established, created and offered to them, and how can they develop their full entrepreneurial potential.

References


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Gregor Jagodič


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