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Potentials of COVID-19 crisis for e-learning – Experiences at the University of Rijeka

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Contents

- E-learning at the University of Rijeka
- *Framework for the development and quality assessment of e-courses*
 - Introduction and an overview of basic concepts in the field of e-learning
 - Categories and levels of quality for e-course evaluation
- Self-evaluation of e-courses at UNIRI



E-learning at UNIRI

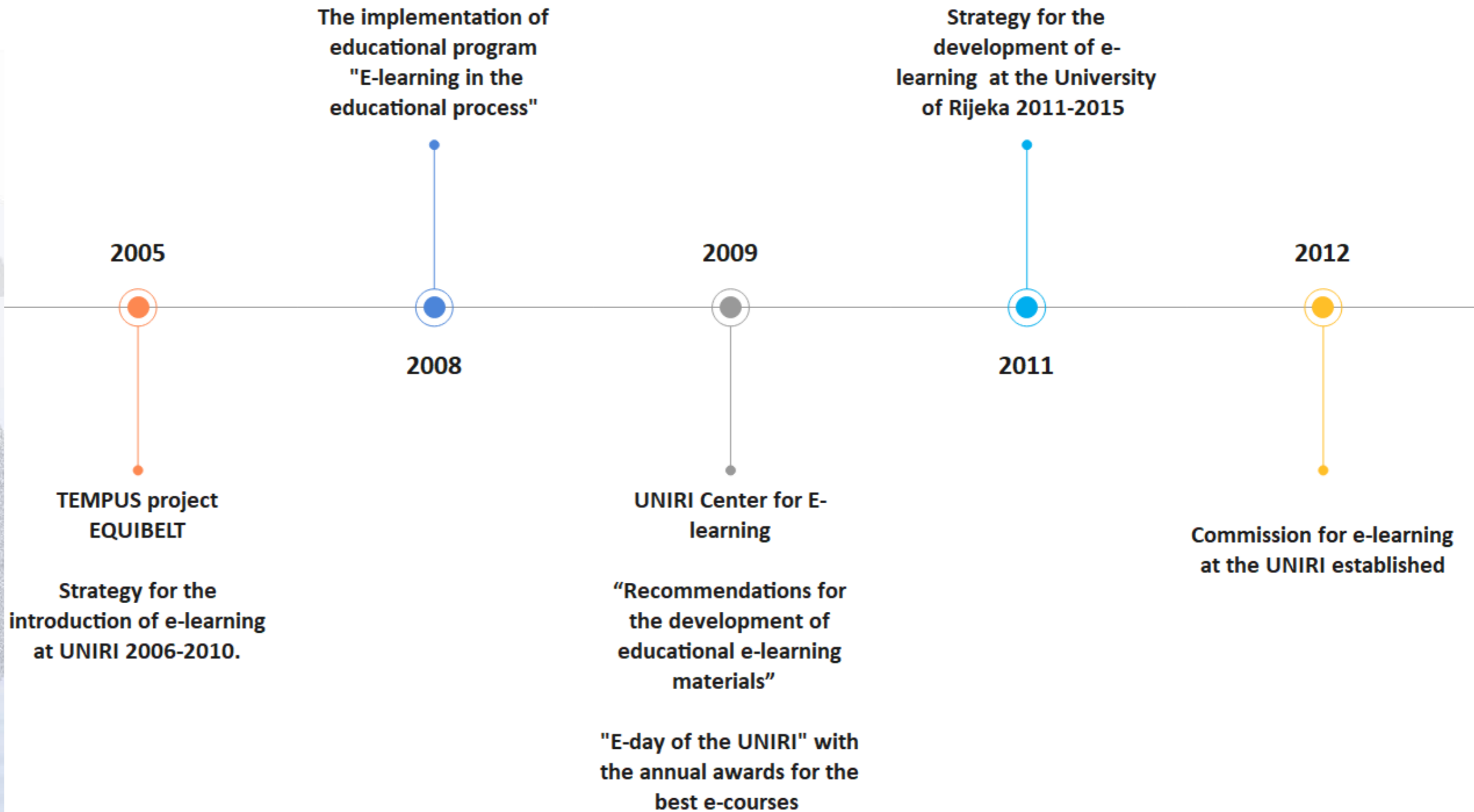
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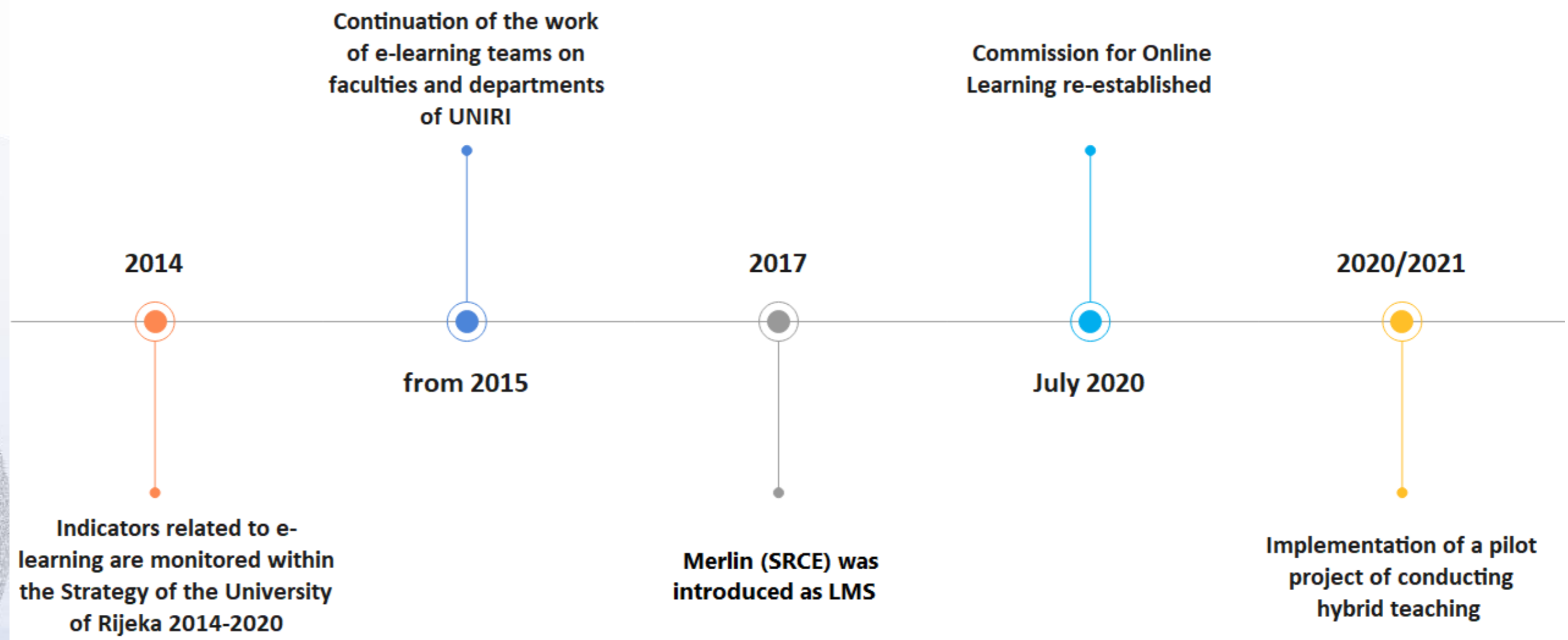
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• E-learning at UNIRI

- **E-learning** - qualitatively a new type of education that enables interactive, two-way communication between teachers and students with the help of Internet-based technologies
- UNIRI has paid attention not only to the **technological**, but also to the **pedagogical-didactic aspects** of e-learning from the very beginning of the organised implementation of e-learning

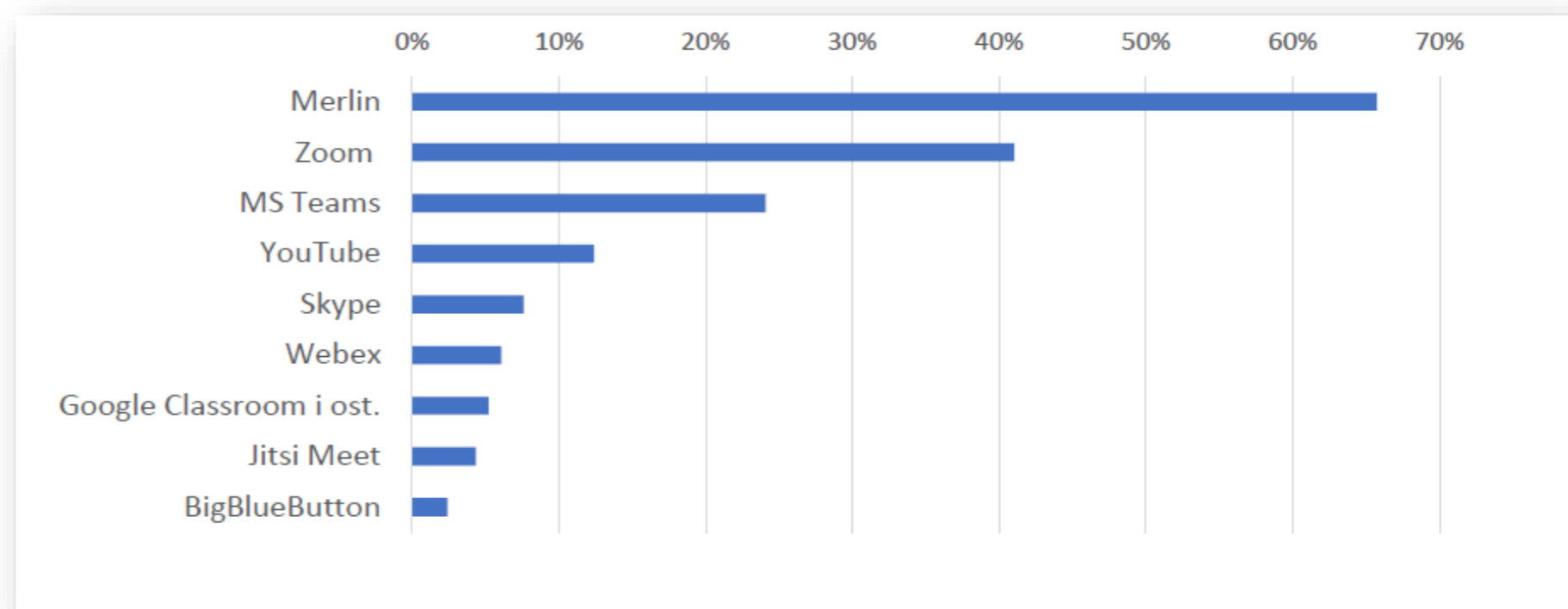
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Teaching during pandemic COVID-19

- Suspension of direct teaching and switching to “emergency remote/online” teaching
- Teachers mainly used e-courses in Merlin (Moodle LMS) in combination with various video conferencing tools
- Teachers and students more or less successfully adapted to online instruction





Online Learning Committee

- July 2020 - *Online Learning Committee* was established at UNIRI
- Tasks:
 - provide support to teachers
 - develop and monitor the quality of online instruction at the University
 - implement online learning activities and projects

Hybrid model of teaching

- Pilot project of conducting hybrid teaching in academic year 2020/2021
- Combination of online teaching in a virtual environment and direct, onsite or face-to-face teaching
- Maximum share of online teaching up to 40% in the study program
- Teachers were to specify the forms of online and face-to-face teaching in the implementation curricula for each course in the program

Recommendations for hybrid model

- Forms of online instruction:
 - synchronously (via videoconferencing tools)
 - asynchronously (by preparing different types of assignments for students to complete individually or in groups) → recommended
 - Assessment:
 - formative assessment online
 - summative assessment (e.g. colloquia and final exams) onsite under controlled conditions
- using **Merlin** (Moodle) LMS for **e-courses**

Implementation of the hybrid model

- Hybrid model was partially implemented as planned due to the ongoing pandemic situation COVID-19
- There were periods when face-to-face classes at UNIRI were suspended (e.g., starting in April 2021)
- The UNIRI *Online Learning Committee* in collaboration with the UNIRI *Quality Assurance Committee* began work on the “*Framework for the development and quality assessment of e-courses*”



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Framework for the development and quality assessment of e-courses

Document: Framework for the development and quality assessment of e-courses

- 1st step: working group within UNIRI *Online Learning Committee* - developing a new version of recommendations for improving e-learning at UNIRI
- 2nd step: Improving *Framework* by UNIRI *Quality Assurance Committee* - emphasis on standards for ensuring and improving the quality of learning and teaching
- Final version of the *Framework for the development and quality assessment of e-courses* in April 2021

Framework for the development and quality assessment of e-courses

- Available online: <https://uniri.hr/wp-content/uploads/2021/05/Framework-for-the-Development-and-Quality-Assessment-of-e-Courses.pdf> (the unedited version)
- [PDF](#) in Croatian:
 - www.uniri.hr → O sveučilištu → Dokumenti i propisi

Kvaliteta i E-učenje		↑
Za preuzimanje kliknite na tekst željenog dokumenta.		
Preporuke za primjereno ponašanje u virtualnim sustavima za provođenje online nastave	Pravilnik o sustavu osiguravanja i unapređivanja kvalitete – pročišćeni tekst od 8. ožujka 2021.	
Pravilnik o dodjeli nagrade za najbolje e-kolegij (12. svibnja 2009.)	Pravilnik o dodjeli financijskih sredstava za rad na razvoju e-kolegija (19. svibnja 2011.)	
Okvir za razvoj i procjenu kvalitete e-kolegija	Priručnik za kvalitetu studiranja	
Smjernice za vrednovanje ishoda učenja		

Structure of the document

- Starting point in the preparation of the document:
 - *Recommendations for the Development of Educational Materials for e-Learning* – UNIRI (2009)
 - *Considerations for quality assurance of e-learning provision* - ENQA (2018)
 - *E-course assessment matrix according to the level of application of e-learning technologies* – E-learning Centre, SRCE (UNIZG)
- Three parts of the document:
 - Introduction
 - Overview of the basic concepts of e-learning
 - Categories and quality levels for e-course evaluation



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Introduction

Framework for the development and quality assessment of e-courses

The quality of e-courses - ESG standards

- Standards and guidelines for quality assurance in the European Higher Education Area (ESG) → application to hybrid and online teaching
- Need to define a set of criteria adapted to e-learning within existing ESG standards
- Focus is on:
 - ESG 1.3. Student-Centred Learning, Teaching and Assessment
 - ESG 1.6. Learning Resources and Student Support Standards

The goals of the *Framework* for teachers, faculties, and university

- Self-assess e-courses for improvement
- Assist instructors in the planning and development of new e-courses
- Evaluate the quality of the course in the context of using e-learning in the hybrid teaching model
- Awarding the prize for outstanding teaching, promotion to a higher academic rank, and the like
- Awarding of the prize for the best e-course in the respective faculty and/or university
- Other purposes of evaluation of the quality of the hybrid teaching model



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Overview of the basic concepts of e-learning

Framework for the development and quality assessment of e-courses

• E-learning, assessment, e-course

- E-learning (online and hybrid)
- Formative and summative assessment
- E-course - a course within a program of study that is taught either following the hybrid model or fully online as a combination of asynchronous or synchronous forms of e-learning
- Technically, an e-course has its own **virtual space** in a learning management system (e.g. Moodle, MS Teams)



Categories and levels of quality for e-course evaluation

*Framework for the development and quality
assessment of e-courses*

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Categories and levels of quality for e-course evaluation

- **17 elements** with quality criteria divided into **four categories**:
 1. Organisation of e-courses (5)
 2. Learning materials, forms and methods of e-learning (5)
 3. Monitoring and evaluation (3)
 4. Communication (4)
- **Three quality levels** :
 - 1 - beginner (minimum quality)
 - 2 - intermediate (satisfactory quality)
 - 3 - advanced (high quality)
- Each higher level implies that the lower levels are met for an element

	Beginner	Intermediate	Advanced
E-course organisation			
1. E-course information	Students have access to basic information about the e-course according to the syllabus (class load, number of ECTS credits, teacher(s), topics, list of compulsory and additional readings, exam dates, dates for consultations, etc.). A schedule, i.e. a timeline of online and onsite e-course activities is available.	In addition to basic information, there is additional information on activities for monitoring student work. Dates of start and end of all online and onsite activities in the e-course are clearly published, and deadlines for all compulsory activities are highlighted (e.g. via a calendar within the e- course).	Students have access to a detailed description of the hybrid teaching model that includes a list of online and onsite activities, ways of monitoring work and criteria for evaluating student activities. The timeline of the activities is harmonized with the detailed structure of the thematic units and depends on the completion and results of individual activities.
2. Learning outcomes	Learning outcomes are listed in the e-course only at the level of the entire course.	Learning outcomes for each thematic unit of the e-course are elaborated in more detail and made available to students.	Learning outcomes are elaborated in detail for all thematic units of the e-course and are constructively linked to teaching and learning methods and activities for monitoring and evaluating student work in the thematic unit and to the student workload (ECTS credits).
3. E-course structure	The virtual space of the e-course is partially structured into units or modules (e.g. thematic units are grouped according to the class type - lectures and workshops).	The virtual space of the e-course is structured into units or modules according to thematic units that contain the relevant learning materials.	The virtual space of the e- course is structured in detail according to thematic units that are harmonized with the planned learning outcomes, and the given schedule for online and onsite classes is being followed.
4. Applied technology	The basic options and tools of the selected e-learning system used for the e-course are applied in the virtual space of the e-course (e.g. logging into the system, user profile management, review of basic teaching materials, submitting assignments, communication via forums and messages, viewing grades etc.).	Digital tools have been applied in the virtual space of the e-course to increase the functionality of the basic capabilities of e-learning systems (e.g. tests with different types of questions, video conferencing tools, webinars, blogs, mind maps, dictionaries, plagiarism checker for submitted papers, questionnaires, etc.). The e-course provides instructions for the use of selected digital tools.	Digital tools are applied in the virtual space of the e-course and they encourage students to actively participate in the e-course and cooperate with each other (e.g. digital badges, games, ePortfolio, interactive presentations, tools for creating joint documents, interactive tools such as Geogebra, virtual programming laboratory, peer evaluation tools, etc.). Instructions for use in the e-course are available for selected digital tools.
5. Individual teaching plan	All content within the e-course is available in the same way to all students without restrictions.	The e-course is organised in such a way that students have limited access to certain contents due to certain conditions (e.g. test scores achieved in knowledge assessments, quizzes, etc.).	The e-course is organised in a way that allows students an individual learning path. The learning process is adjusted depending on the preferred channels of receiving information and the results achieved in different activities of each student.

	Beginner	Intermediate	Advanced
Learning materials, forms and methods of e-learning			
1. Availability of learning materials and consistency with learning outcomes	Learning materials in the virtual space of the e-course partially support students in achieving the intended learning outcomes.	Learning materials in the space of the e-course are modern, updated, complete and support students in achieving the intended learning outcomes.	There are also additional materials that provide information for students on the opportunities for expanding knowledge beyond the intended learning outcomes and acquiring additional competencies.
2. Way of presenting learning materials	Learning materials are available in some form of multimedia content (e.g. text format, audio/video), but are not interactive.	Learning materials are available in several forms, some of which can be interactive, taking into account students' preferred channel of receiving information (e.g. learning materials in text format and as a video presentation have been developed on the same topic).	Learning materials are a combination of multimedia-formatted content and the capabilities of e-learning systems and other digital tools for achieving interactivity (e.g. Merlin lessons, H5P interactive content, etc.).
3. Strategies and methods	E-course activities support the application of verbal and visual teaching strategies and methods (e.g. reading, working on the text, watching videos).	The e-course contains some activities that support the application of teaching methods and active teaching strategies (e.g. application of games, discussion in the forum).	The e-course continuously applies a variety of synchronous and asynchronous activities that support an interactive application of active teaching methods (e.g. problem simulation and problem solving).
4. Forms of work	Only individual student work is provided for the e-course.	The e-course contains some activities organized as collaborative learning (e.g. discussion, working in pairs).	E-course activities support collaborative learning (e.g. wiki creation of a joint document, teamwork) aimed at increasing motivation and engagement among students.
5. Authorship of learning materials	Available learning materials have no clearly identified authors and/or use licences.	Authors of most learning materials and their use licences are known.	Authors of and use licences for all learning materials, including teachers' own learning materials, are defined (e.g. teachers have regulated their own teaching materials by applying the <i>Creative Commons</i> licence).

	Beginner	Intermediate	Advanced
Monitoring and evaluation			
1. Activity evaluation criteria	There are activities for monitoring students' work in the e-course, but there is no clear connection with the learning outcomes or instructions on monitoring and/or evaluation criteria.	Students have access to instructions on monitoring and evaluating (scoring) alongside the criteria for evaluation activities and a detailed description of how the final grade is calculated.	Monitoring and evaluation activities are continuously applied. Students are presented with clear instructions and criteria as well as planned learning outcomes.
2. Formative and summative assessment	Summative assessment (e.g. tests, assignments) is conducted in the e-course, but formative assessment (e.g. knowledge examination tests) is not included.	In addition to summative evaluation, formative evaluation (e.g. peer or self-evaluation) is included only for some topics (learning outcomes) in the e-course.	Formative evaluation of all topics harmonized with summative evaluation is continuously applied (e.g. self-evaluation tests appear in the form of questions that will appear in the colloquium and/or final exam).
3. Assessment feedback	Forms for assessing individual activities in the e-course are used, but students do not receive relevant and/or timely feedback (e.g. only credits for activities are entered).	Forms for assessing all evaluation activities in the e-course are used. Relevant and timely feedback is provided to students at the group level (e.g. exact solutions to questions/tasks with a large number of incorrect answers are published in the forum).	Assessment forms or sections are used. Relevant and timely individual feedback is provided to each student for all e-course activities.

	Beginner	Intermediate	Advanced
Communication			
1. Student Information	Communication channels are used within the virtual space of the e-course, but informing students of course activities is not performed regularly and/or consistently.	By using communication channels within the virtual space of the e-course, students are regularly informed only of some course activities (e.g. announcements of colloquia and exams).	Students are regularly and consistently informed of all online and onsite course activities by using communication channels within the virtual space of the e-course.
2. Student-teachers communication	There are channels for basic communication with teachers, but it is not stated clearly how and when students should use them.	Channels for communication between students and teachers within the space of the e-course are used and it is defined when to use which channel.	Communication between students and teachers within the space of the e-course is carried out regularly, according to clearly stated and published instructions and protocols for communication.
3. Student-to-student communication	There are channels for communication between students, but teachers do not encourage students to communicate.	Students use communication channels within the space of the e-course, teachers encourage them to communicate and it is clearly defined when to use which channel.	Communication between students is an element of achieving defined learning outcomes. Activities as well as communication rules and evaluation methods are clearly defined (e.g. joint discussion via wiki tool for collaborative writing).
4. Feedback on e-course experience	Feedback on students' experiences in the e-course is collected (e.g. by means of end-of-course surveys), but students do not receive feedback on the results.	Feedback on students' experiences in the e-course that is used for future improvement thereof is collected, and students are informed of the results and improvements made.	Feedback on students' experiences in the e-course that is used to improve the teaching process during the e-course is continually collected and processed, and students are regularly informed of the results and improvements made.

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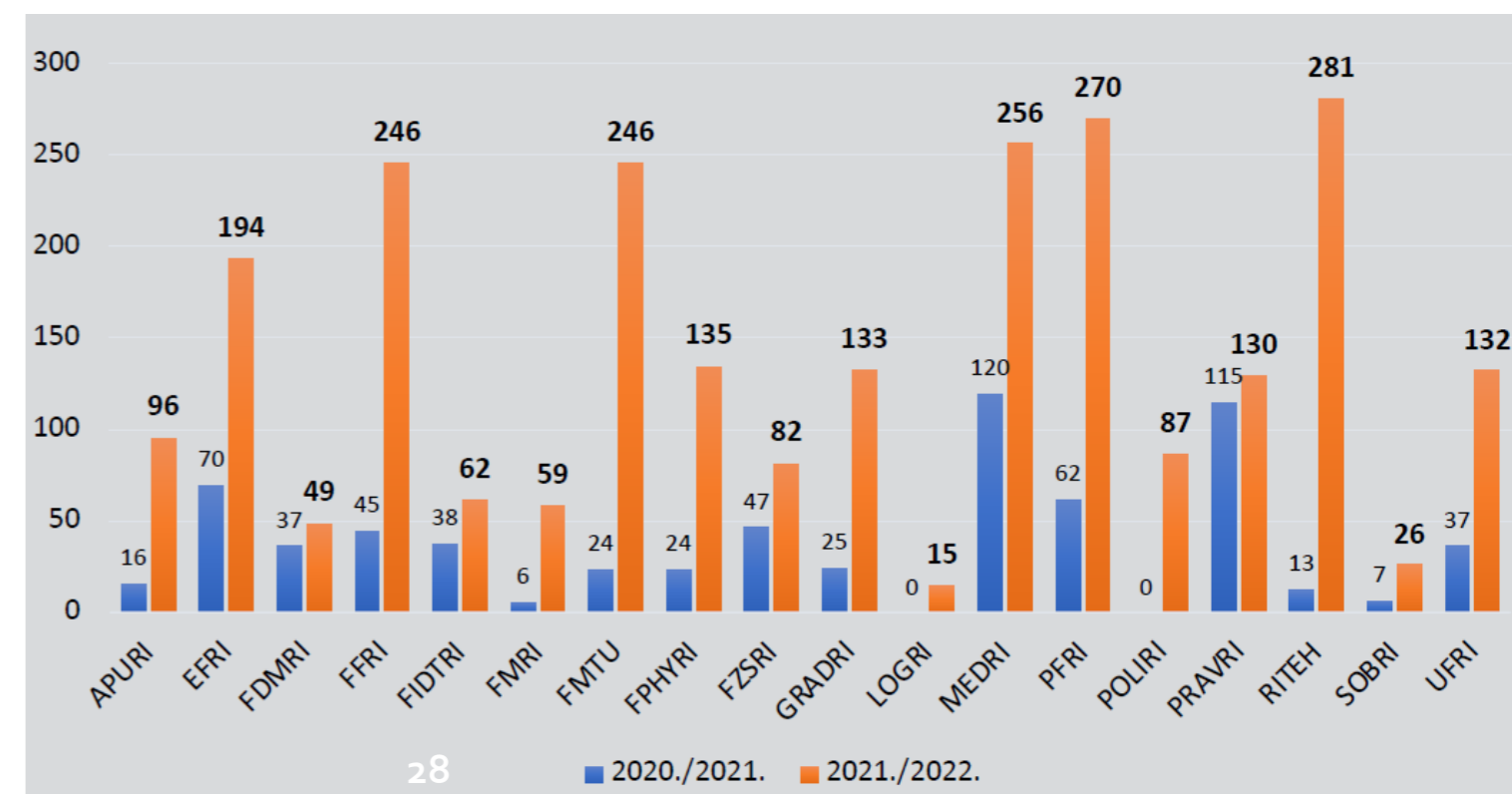
Self-evaluation of e-courses at the University of Rijeka

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Self-evaluation

- In 2020/2021 self-evaluation **optional**: 686 evaluated e-courses
- In 2021/2022 self-evaluation **mandatory**: 2499 evaluated e-courses



Outstanding positive elements

- E-course instructors **regularly and consistently inform** students of all activities and are available to **communicate** with students
- Modern, updated, and complete basic and supplemental **learning materials** are available to students in the e-course
- Learning materials are **clearly organized** and available to students in blocks/modules of the virtual e-course area
- **Instructions for monitoring and assessment** (scoring) with criteria and a detailed description of how the final grade for the course is formed are available to students

Recommendations for improvement

- Consider revising curriculum forms to include more information, such as detailed **learning outcomes** constructively linked to teaching and learning **methods** and **activities** to monitor and assess student work
- Promote activities that support the use of teaching methods and strategies of **active teaching and collaborative** student learning → use **digital tools** that encourage students to actively participate and collaborate
- Continuously implement **formative assessment** in the e-course and provide relevant and timely **feedback** to students at least at the group level
- Encourage **communication among students** so that it is an element in achieving at least some of the defined learning outcomes

Summary remarks

- COVID-19 crisis not only as a challenge but also as an opportunity for a new development of e-learning:
 - The main outcome *Framework for the development and quality assessment of e-courses*
- The *Framework* can help teachers improve existing and plan and develop new e-courses
- It is included in the new version of UNIRI *Quality Assurance Handbook* and will be used for Internal audit of the quality assurance system at UNIRI



Thank you for your
attention!

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