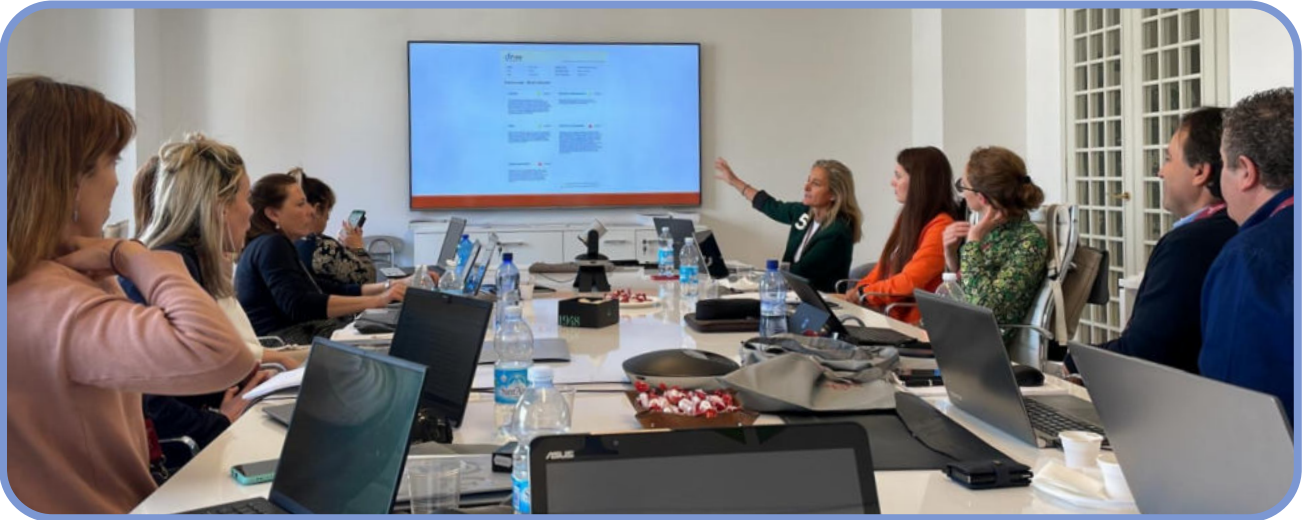


**DiFree Newsletter-Issue 3, May 2023**

*In this Issue: Anna Romagnuolo, Associate Professor of English Language at Unitus, shares a short report on the validation of the EntreComp and DigComp frameworks and Barabar Izzi, an Architect of Istituto Centrale per la Grafica in Rome, expert in Museum exhibition design and Conservation of Architectural Heritage, illustrates the evolution of the profession of Exhibition Designer.*



*Our third TPM on the 3rd and 4th of May was very fruitful: DiFree partners validated their 1st product result, CRS Laghi's E-book providing practical information on how to freelance. Unitus presented its model for a digital repository of multilingual CV, Resume and Portfolio samples to be used by aspiring freelancers and job seekers, complemented by a freely accessible self-study e-learning course on professional writing to help Repository users to adapt the selected models to their needs; ICASP introduced its idea of a Mentorship program for freelancers-to-be, integrating a video-course on mentorship, and UCA illustrated its interactive self-assessment tool of entrepreneurial and digital competences inspired by the EntreComp and DigCom frameworks. This has been designed on the basis of focus group discussions involving students and freelance professionals in each partner university.*

*This Newsletter will indeed share the results of one of these Focus group discussions, performed at the Italian University of Tuscia and, since creativity appears to be one of the most essential qualities both for entrepreneurs and competent digital users, this issue will also provide an overview of a very creative freelance job, that of museum exhibition designer.*

**A.R.**

## Validation of Entrepreneurial and Digital Competences: A Comparative Analysis of Student and Professional Perspectives

Anna ROMAGNUOLO

Entrepreneurial and digital competencies are increasingly recognized as essential for personal and professional success in the modern world. **EntreComp** (Fig. 1) is a comprehensive reference framework developed by the Joint Research Centre of the European Commission identifying key competencies for entrepreneurial action. In brief, it is made up of 3 competence areas (Ideas & Opportunities, Resources, and Into Action), each of which contains 5 competences, and together these make up the 15 competences that individuals use to discover and act upon opportunities and ideas<sup>1</sup>. The **DigComp** framework outlines digital competencies necessary for participating in a digitally driven society. First launched by the European Commission's [Joint Research Centre \(JRC\)](#) in 2013, and updated in 2022 to take into account AI applications, it identifies the key components of digital competence in five areas and 21 specific competences (Fig. 2). It also describes eight proficiency levels, and, therefore, can work as an assessment tool of skills and attitudes that can help citizens engage confidently, critically and safely with current, new and emerging digital technologies<sup>2</sup>.

Are both frameworks really useful? What are potential users' opinions about them? A survey was conducted during focus group discussions arranged at and by DiFree partners' institutions to verify what skills, knowledge and attitudes people generally associate with entrepreneurship and with confident, critical and responsible use of digital technologies. The following paragraphs describe the survey results. They briefly report on how these frameworks have been perceived and validated by two distinct groups:



Figure 1 The EntreComp Wheel



Figure 2 The DigComp Framework

Information and data literacy	<ol style="list-style-type: none"> <li>1.1. Browsing, searching and filtering data, information and digital content</li> <li>1.2. Evaluating data, information and digital content</li> <li>1.3. Managing data, information and digital content</li> </ol>
Communication and collaboration	<ol style="list-style-type: none"> <li>2.1. Interacting through digital technologies</li> <li>2.2. Sharing information and content through digital technologies</li> <li>2.3. Engaging in citizenship through digital technologies</li> <li>2.4. Collaborating through digital technologies</li> <li>2.5. Netiquette</li> <li>2.6. Managing digital identity</li> </ol>
Digital content creation	<ol style="list-style-type: none"> <li>3.1. Developing digital content</li> <li>3.2. Integrating and/or re-elaborating digital content</li> <li>3.3. Copyright and licences</li> <li>3.4. Programming</li> </ol>
Safety	<ol style="list-style-type: none"> <li>4.1. Protecting devices</li> <li>4.2. Protecting personal data and privacy</li> <li>4.3. Protecting health and well-being</li> <li>4.4. Protecting the environment</li> </ol>
Problem solving	<ol style="list-style-type: none"> <li>5.1. Solving technical problems</li> <li>5.2. Identifying needs and technological resources</li> <li>5.3. Creatively using digital technologies</li> <li>5.4. Identifying digital competence gaps</li> </ol>

**Italian students** on the verge of entering the workforce and **experienced Italian digital freelancers** working across various fields. Understanding the competences students and professionals prioritize can help inform educational strategies and professional development programmes.

### Methodology:

Two distinct questionnaires were administered to 12 students and 12 freelancers. The student participants, 10 of whom were attending the final year of the Italian 2<sup>nd</sup> level University degree course in Economics and Marketing and two from a three-year University degree in International Relations at UNITUS (Tuscia University in Viterbo, Italy), were asked to self-assess their digital and entrepreneurial competencies using a set of 36 cards, representing the competences from **EntreComp** and **DigComp**. The students were instructed to rate their confidence in each competency on a scale from 0 (not confident) to 5 (very confident). The goal was to identify the competences they felt most prepared for as they were about to transition from academia to the job market.

The registration form and relevant information about the Survey and its questionnaire were shared with the students invited to participate through the Forum News of the Moodle platform of the courses the moderator of the focus group teaches at UNITUS. Then, the main concepts and most relevant information about the project Digital Freelancing and its relationship with EntreComp and DigiComp were summarized again the beginning of the Focus Group Session.

A card-sorting technique was also used with 12 experienced Italian digital freelancers. Their average age range was between 45 and 55, with only one freelancer being a senior, and a few being in their early thirties. Their professions, although not being exclusively conducted online, require frequent digital and online activities (from providing legal counsel at a distance to creating web graphic content or interior design, from creating educational material for children to providing translation and interpreting services in e-learning/ remote work environments).

Interviewees were asked to rate the importance of the entrepreneurial and digital competences from the **EntreComp** and **DigComp** frameworks, classifying them as **important**, **essential**, or **key**. This method allowed the survey administrator to understand not only which competences the professionals valued most but also their relative importance in the context of freelancing. The professionals summoned for the Focus Group discussion on EntreComp and DigiComp competence categorization and ranking were invited by the Focus group moderator to submit their replies after registering on a Google form whose link was shared via a chat room.

### Results:

#### Student Competency Validation:

All students declared familiarity with the competences and admitted the need for more knowledge about freelance opportunities and digital skills acquisition, which, when lacking, they said, could be acquired by asking somebody with more knowledge – a senior, a supervisor, or a colleague.

The students' self-assessments reveal a distinct focus on **communication** and **action taking** competences. These areas were consistently rated highly, suggesting that students feel confident in

their ability to use digital tools, collaborate online, and take initiative in their work. More specifically, competences like **interacting through technology, sharing content, and taking the initiative** scored highly, indicating a readiness to engage in the digital economy. However, competences related to **coping with uncertainty, problem-solving, and working with others** were less frequently rated as strengths, pointing to areas where students might need further development.

### Professional Competency Validation:

In contrast, the professionals emphasized competences like **creativity, vision, and self-awareness** as **key** for success in the freelancing world. These were rated highly in the card-sorting process, reflecting the importance of innovation and strategic thinking in the digital freelance economy. Many professionals also rated competences related to **spotting opportunities** and **coping with risk** as **essential**, indicating that the ability to identify new opportunities and handle uncertainty is critical for thriving in freelance work. Interestingly, **working with others** received mixed ratings, highlighting the diversity of professional experiences, where some freelancers value collaboration, while others operate more independently.

Their replies reveal the necessities of their jobs, and also their personalities. Those who perform jobs that do not require partners' or assistants' help declared they do not believe in cooperation and collective activities; on the contrary, those who perform jobs that require collaboration with experts, such as in architectural design and educational content creation, declared that cooperation and knowledge sharing are fundamental to individual and professional growth.

Those who attributed zero or a low score to competences related to technological skills – such as programming, solving technical problems, etc., - asserted that their choice is due to the fact that since they are working or have specialized in other professional fields, they tend to hire professionals/experts (such as a programmer or a technician) when they need one. Therefore, they do not think these competences are necessary for anyone interested in becoming an independent professional.

In other cases, in which a zero score was attributed, for example, to ethics or environmental protection, the choice is due to a specific reasoning - these competences, according to some of the interviewees, should not be assessed nor prioritized but simply implied or given for granted in our society. They should be well known to any employer and employee.

Finally, quite interestingly, one participant, who works as a graphic designer and photo- editor, remarked that an important competence is missing from the list: “trust” – the ability to create customer loyalty and repeat purchase of the good or service.

Two participants noted that “creativity” should include the ability to identify latent or unexpressed needs, which is at the origin of all successful, innovative, marketable ideas.

Another interviewee remarked that “online citizenship” is something available to private individuals and depend on personal choices, but is not strictly related to success in entrepreneurial activities. Another suggested that there was need to develop entrepreneurial/risk taking skills at school and observed that “**luck**” is a missing element, which should be added to the list of success factors in freelance jobs.

### Discussion:

The differences between student and professional ratings offer valuable insights into the evolving importance of **EntreComp** and **DigComp** competences. For students, competences related to **digital communication** and **taking action** are essential for immediate engagement in the workforce, particularly as they enter a highly digitalized job market. These results suggest that students feel well-prepared in areas that enable them to operate in the digital environment, but they may lack confidence in more complex, high-level competencies such as **entrepreneurial vision** and **problem-solving** under uncertainty.

For professionals, the emphasis on **creativity**, **self-awareness**, and vision suggests a recognition of the importance of **entrepreneurial thinking** and **innovation** in the freelancing world. The ability to **spot opportunities** and **cope with risk** was particularly valued, reflecting the unpredictable nature of freelance work. These professionals likely recognize the need to continuously adapt, innovate, and find new ways to leverage their skills in a competitive and uncertain market.

The mixed ratings on competences like **working with others** and **mobilizing resources** indicate a nuanced understanding of collaboration and resource management in freelancing. While some freelancers view these competences as essential, others may prioritize independence, relying on personal networks or external partners for support.

### Conclusion:

The findings suggest that education and training programmes should focus on enhancing students' confidence in higher-order competences such as **problem-solving**, **vision**, and **coping with uncertainty**. For professionals, continuous development in areas like **spotting opportunities** and **collaborating effectively** is crucial for maintaining success in the ever-evolving freelance economy.

By understanding these differences, educators and policymakers can better align curricula and professional development initiatives to support the growth of essential digital and entrepreneurial competences, fostering a generation of freelancers and professionals ready to thrive in a digitally driven world.

### Endnotes

1

Cfr. McCallum E., Weicht R., McMullan L., Price A. (2018). *EntreComp into Action: Get Inspired, Make It Happen* (M. Bacigalupo & W. O'Keeffe Eds.), EUR 29105 EN, Publications Office of the European Union, Luxembourg. ISBN 978-92-79-79360-8.

2

Cfr. Vuorikari, R., Kluzer, S. and Punie, Y. (2022). *DigComp 2.2: The Digital Competence Framework for Citizens - With New Examples of Knowledge, Skills and Attitudes*, EUR 31006 EN, Publications Office of the European Union, Luxembourg. ISBN 978-92-76-48882-8.

## The Exhibition Designer and art in the near future

What is an Exhibition Designer and what do they do?

*Barbara IZZI*

The Exhibition Designer is a relatively new professional figure primarily interested in experiential exhibition design; they are often freelance, and may work for several museums under the same associated group management.

A key figure, able to create a connection between the space and its visitors, through performative and interactive experiences, the Exhibition Designer is a professional who designs the space and arranges the displays for exhibition events, whether they are temporary or permanent, such as exhibitions, fairs, museums, displays, retail stores, window displays, digital spaces and sets for TV shows.

Their work can be seen as a natural development of the classic figure of the curator of museums, institutes, and cultural institutions, etc., and part of the museology category, thanks to the spread and accessibility of technology (especially digital), which has led to a real change in the workplace and in mass communication, which has become interactive (Social Networks). In 2020, the Covid pandemic drove museum innovation focussing particularly on the development of digital spaces, and even today many museums and galleries are implementing new technologies, inevitably changing the nature of the museum, the design of exhibitions and their relationship with its visitors.

This process has proven indispensable in transforming museums, cultural institutes, and archaeological parks, etc. into increasingly interactive and shared experiences and in improving their accessibility.

But how was the museum designed in the past and when did it first come into being?

Until the 18th century, works of art were commissioned and collected by noble families. The collections were intended to celebrate the virtues of the family, to represent its importance in the eyes of the fortunate few, who were usually nobles, ambassadors or distinguished intellectuals admitted to the noble's home. Access to these collections was therefore very selective, and in the picture galleries, paintings were displayed "wall-to-wall": they were placed so that they completely covered the walls of the rooms: something that favoured the view of the whole rather than the enjoyment of a single painting, and they were often portraits of the nobles themselves and their dynasty.

With the Age of Enlightenment came an "opening up" of dynastic collections, but still only to a very select group, the criteria being based on dress and social class, so this "opening up" was modest, and was, above all, the result of a concession that the ruler or nobleman made to the population.

The emergence of exhibition spaces open to the general public, regardless of social class, is a victory that has a specific date: September 19, 1792: on that occasion, the French minister Roland decreed the transfer of the royal art collections of the French crown to the French nation. This date is also the founding date of the present-day Louvre Museum, which was established as an encyclopaedic museum, capable of bringing together all those works that can document the development of the "history of art." Another important historical moment in the development of

museums as holders of works of art coincides with the suppression of religious orders and minor brotherhoods, ordered by enlightened rulers and later by Napoleonic decrees.

In Italy, after its unification, the first civic museums emerged, preserving and promoting local works of art, and a real mapping of the Kingdom of Italy's art began. The first example of a gallery building designed for display is the Galleria degli Antichi di Vespasiano Gonzaga in Sabbioneta (province of Milan), built in 1583-90.

In subsequent centuries, museums, whose role was to highlight art's fundamental importance, underwent a profound transformation, leading to the establishment of the first public museums and, as a result, the democratization of culture. Over time there was a growing awareness of the significance of museums as places to house collections and exhibitions that fostered education and knowledge of the sciences and the arts. Museums became real instruments of power, with collections where artifacts were transformed into national symbols.

In the second half of the 20th century, the role of museums shifted from one of exhibitions to that of theorization and promoter of political ideologies. The “universal museum” came into being: an exhibition space that allowed the visitor to travel metaphorically around the world by discovering its history and origins, while still remaining in European cities. The 1950s and 1960s saw the great architects of Italian museology as protagonists and almost all of them devoted themselves to repurposing historic and monumental buildings for display: known as the “internal museum.”

In recent years, Italian museums have undergone substantial changes: from their recognition as an institution, to the identification of those minimum requirements essential to ensure their existence; from the search for a new role in the protection and promotion of cultural heritage to the practice of more organic relationships with their surrounding area (National Charter of Museum Professions, Rome 2008).

The figure of the exhibition architect has also evolved: from the first museum architects to today's professionals with specialized skills that have embraced not only architecture but also the world of technology. A recent study showed that 80% of visitors under the age of 35 (Millennials or Generation Z) prefer to visit interactive museums with integrated technologies, and that 42% of young people go on social media or official websites before visiting a museum to understand how facilities apply the technology, from primary services to installations.

Consequently, museums have become a place where art and science come together to give viewers a new form of edutainment, by exploiting the potential of digital technology: an example is Herculaneum Archaeological Park's digital platform, where the real and virtual worlds merge so that it can be enjoyed, in an interactive and customizable way, with a huge amount of content and data, by anyone anywhere in the world. This results in Italy's extraordinary cultural heritage being promoted through the virtual three-dimensional reconstruction of entire historical contexts and artifacts, thematic galleries and virtual tours, which can encourage the participation of younger users while preserving artifacts from real physical risks and optimizing their preservation.

Today, being an Exhibition Designer means being part of this process: in a museum, an archaeological park, etc., he or she is the person able to interpret a curatorial storytelling project and translate it into visual and spatial forms, using various means and methods for the exhibition

spaces. They offer support to gallerists and artists, so as to improve the quality and enjoyment of works for users and visitors, especially through new digital technologies.

Working projects can now be completely managed digitally, allowing many different professional figures to interact and work in teams, with the enormous advantage that these professionals are able to work remotely, traveling only when needed and often creating a network of external collaborations; this is also possible with public museums, institutes and archaeological parks through direct contracts.

In summary, an Exhibition Designer:

- contributes to the definition of the museum project
- prepares the museum's promotion programmes
- sets up the collections
- curates the design of temporary and permanent exhibitions
- participates in organizing and managing visitor flows with the aim of achieving the best possible enjoyment of the museum's collections
- participates in the planning and implementation of educational activities
- collaborates in the museum's research and documentation activities

To be able to carry out this work, a range of skills is required which can be fostered while still at school: today there are many apps that allow young students as early as middle school to be able to create and encourage the virtual design of a museum in a few simple steps, as well as teaching cataloging and learning about the vast world of art and learning about communication mechanisms to popularize artworks among their peers.

There are also various online platforms that support cultural institutions to help them increase their reach online and that allow users to visit parts of well-known museums, art galleries, and world heritage sites free of charge, as well as digital exhibitions that tell stories from the archives of cultural institutions around the world such as, for example, GOOGLE ARTS & CULTURE.

It would also be beneficial for prospective exhibition designers to have a good knowledge of conservation methods and cultural heritage promotion, as well as museography and exhibition design, display and itineraries; this can be achieved by taking a university course majoring in cultural heritage such as:

- Humanities - Humanistic Studies
- DAMS - Music and performing arts.

In conclusion, the professional role of Exhibition Designer is a challenging and creative one; thanks to innovation and new technologies which are the current driving force behind the revolution in exhibitions and installations, the Exhibition Designer is at the heart, holding the key that opens the door from art to technology, embracing the new digital challenges of immersion in museums and much more, in the coming years.

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