Thinking about the Relationship between Distance Learning and Territories through the Study of Three Breton "Prépa Numérique" Training Systems: A Contribution to the Notion of Enabling Environment

David Puzos[1] *& Magali Hardouin*[1]

Abstract

The starting point for this research is the "Grande École du Numérique", a public interest grouping resulting from a government initiative in 2015, which aims to create a network of training courses in digital professions for people who are far from employment. We will focus on three vocational training schemes resulting from this initiative: the "Prépa numérique" scheme in Rennes (222,060 inhabitants), Brest (139,225 inhabitants) and Rostrenen (2,942 inhabitants), a small rural town in central Brittany. The three schemes were set up by a scientific organisation in partnership with an engineering school.

Launched on 20 January 2020, the three "Prépa Numérique" schemes had to switch all their training to distance learning from 17 March 2020, following the introduction of strict confinement, which greatly disrupted the training engineering. The originality of our research is that we will reflect on the way in which the relationships forged during this period between distance learning systems on the one hand and the local ecosystems of actors on the other, have helped to produce more or less enabling configurations. In short, the aim is to examine the way in which the three "Prépa Numérique" systems have mobilised territorial resources in order to promote the deployment of learners' capacities. In short, our ambition in this paper is to use this health crisis as an opportunity to question the pedagogical practices and organisational modalities of a distance vocational training system; in addition, it is to make a contribution to the work on enabling learning environments.

Keywords

Distance learning, enabling environment, digital training, training-region relationship, proximity

1 ESO, Rennes, France

Corresponding author: Magali Hardouin (magali.hardouin@univ-rennes2.fr)

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1 Introduction

In 2015, under the Hollande presidency, the national Grande école du numérique scheme was launched. This is a public interest grouping that awards a label to training schemes for digital professions. Today, nearly 500 related schemes have been set up and offer people who are far from employment the opportunity to benefit from professional opportunities linked to the development of the information and communication technologies sector.

Our article focuses on the study of three of them; these are Breton vocational training schemes called 'Prépa Numérique' set up by an association for the popularisation of science in partnership with a large general engineering school. The investigations, led by David Puzos (co-author of this text), began on 20 January 2020, i. e. a little less than two months before the first confinement and the switch to remote learning. Indeed, in view of the health risks linked to the Covid 19 pandemic, the French government imposed a strict lockdown on 17 March 2020, obliging training organisations to carry out their educational missions in distance learning for several months. The literature on the impact of lockdowns on training engineering highlights the difficulties caused by such an upheaval. Villiot-Leclercq (2020), reveals that the teaching practices deployed by training organisations during this period often resembled an artisanal bricolage whose objective was essentially to ensure pedagogical continuity. It seems that this mode of operation was then limited to the dissemination of content, without any real questioning of the scripting and mediatisation of teaching resources (Villiot-Leclercq, 2020).

At a time when distance learning for the unemployed continues to develop, this health crisis seems to us to be an opportunity to reflect on the pedagogical modalities of distance learning in the context of vocational training. The particularity of our research is that we are going to be interested in the territorial dimension of vocational training; it is a question of questioning the potential of distance learning engineering to weave links with local ecosystems, with a view to encouraging the capacity to learn and to develop professionally. To our knowledge, few works have been interested in analysing the impact of distance learning on the training-employment relationship, which is precisely the interest of our research.

In order to carry out our analyses, we propose to rely on the notion of an enabling environment, which we will develop below.

2 Theoretical Framework: The Use of the Enabling Environment Concept

The notion of an enabling environment was initially formulated by Mahbub ul Haq[2], who participated with Amartya Sen in the drafting of the Human Development Report (Fernagu, 2018). According to this conception, the enabling environment contributes to human development; understood in the light of the capability approach developed within the work of Sen (1992, 2000). According to the capability approach, the challenge of development is to increase the space of opportunities for action, enabling each person to make choices, to express capabilities, in all aspects of their lives (Zimmermann, 2011). The analysis of capabilities then involves identifying factors that help individuals to appropriate resources to convert them into valuable functioning. These factors can be of different kinds: social, environmental, or individual (Robeyns, 2007, p. 46). In conclusion, an enabling environment can be defined as an environment that supports capabilities (Fernagu, 2018).

In France, the notion of an enabling environment has been popularised mainly within the field of constructive ergonomics. This field of research is interested in the way in which professional environments guarantee health and well-being at work. Falzon (2013), following an appropriation of Sen's work, states that the establishment of an enabling environment ensures a non-deleterious work environment. It encourages an increase in the possibilities for concrete action via the deployment of conversion factors and choices, and this from a developmental perspective. Therefore, in order to be enabling, an environment must ensure three essential functions:

- A preventive function: it preserves the capacity for action by preventing psychosocial risks (Villemain & Lémonie, 2014)
- A function of universality: it must take into consideration inter-individual differences in order to prevent situations of exclusion (Villemain & Lémonie, 2014)
- A developmental function: Finally, it must be a developmental space and encourage the development of skills, knowledge and, more generally, the agentivity of individuals (Villemain & Lémonie, 2014).

Ultimately, development is understood as a fact, an objective to be achieved and a means of action (Arnoud & Falzon, 2013).

More recently, in France, the notion of enabling environment has been significantly appropriated by the educational sciences (Fernagu, 2018; Grandval, 2019; Martin, 2021; Vidal-Gomel et al., 2012). The enabling environment adapted to the challenges of dis-

2 Pakistani economist, politician and banker (1934–1998)

tance learning does not consist of the simple provision of educational resources according to a "diffusionist" model. In this sense, research on distance learning for jobseekers generally agrees that the lack of autonomy support is the main factor explaining the abandonment or failure of distance learning (Albero & Charignon, 2008; Albero, 2010; Fernagu-Oudet, 2018). Thus, a few elements that can be likened to 'negative' conversion factors are pointed out, namely: the lack of training for trainers (Albero & Charignon, 2008), the lack of support for learning (Albero, 2010), or the difficulties in accessing and using the digital platforms that have been set up (Nagels, Tali and Abel, 2019) etc. As a result, Fernagu (2018) states that an enabling environment is one that supports learning, that encourages the accessibility and use of the resources made available. Furthermore, she points out that an enabling environment is not sufficient on its own and that it is necessary to raise the issue of engagement in training; therefore it is also an environment that gives the desire to learn (Fernagu, 2018). It is not enough to decree the autonomy of learners; it is necessary to put in place factors of conversions and choices that allow its realisation.

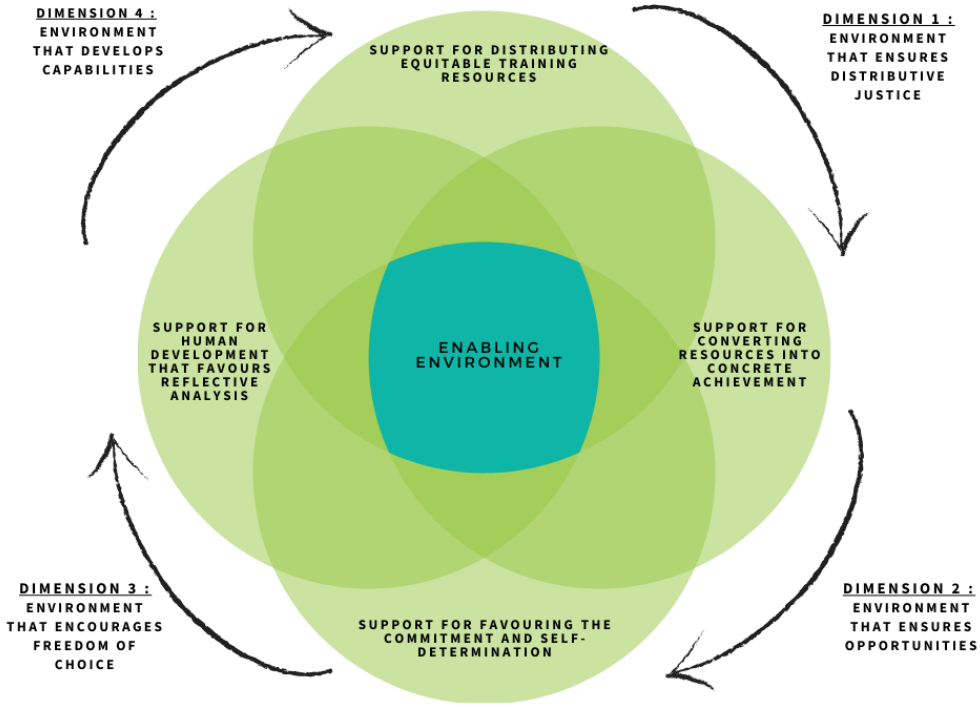

Figure 1: The functioning of an enabling environment (April, 2021). Author David Puzos based on Delgoulet & Vidal-Gomel (2013); Falzon et al. (2013); Fernagu-Oudet (2012, 2018); Le Morellec (2014)

As a synthesis of what we have just developed, the diagram *The functioning of an enabling environment*, constructed by David Puzos, highlights the processual aspect of an enabling environment. This diagram was drawn up based on a review of the literature on the concept of an enabling environment (Delgoulet & Vidal-Gomel, 2013; Falzon et al., 2013; Fernagu-Oudet, 2012, 2018; Le Morellec, 2014). It highlights four key dimensions from which a training environment can be described as truly enabling (Fig. 1).

First dimension: it is an environment that makes a few resources available. Even if the enabling environment cannot be summed up in this dimension alone, the question of distributive justice appears essential to guarantee, at least in principle, the success of everyone within a training system.

Second dimension: it is an environment that facilitates the conversion of the resources made available into concrete achievements. For the training system, it is a matter of putting in place and/or identifying a certain number of factors in the environment that encourage the use of resources (educational, institutional, economic, etc.).

Third dimension: it is an environment that encourages the commitment and self-determination of individuals within the training system by putting in place decision factors that act on three constituent dimensions of self-determination, the need for autonomy, the need for social belonging and the need for competence (Ryan & Deci, 2017).

Fourth dimension: In fine, it is an environment that increases autonomy and encourages the freedom of everyone to select, from a set of accessible opportunities, possibilities of functioning.

These different dimensions appear to be interrelated and dynamic, influencing each other. In short, an enabling environment occurs in a situation and according to the use that is made of it (Loquais, 2016).

Through this paper, we do not seek to identify indiscriminately all the elements of distance training engineering that have played the role of conversion and/or choice factors. The challenge is to identify what, in the distance learning environment, has enabled (or not) the opportunities offered by the development of the digital sector in Brittany to be converted into professional development.

3 Methodology and Fields

3.1 Context

The Prépa Numérique scheme has a dual objective. On the one hand, it aims to equip and acculturate people who are far from employment with digital skills; and on the other hand, to accompany them towards a return to training leading to qualifications in the digital field and/or towards employment. In other words, the aim is to help trainees develop professionally. The people targeted are more specifically people who are far from employment (for details of the cohorts, please refer to table 1 in the appendix). The training lasts for seven months and includes various introductory modules in web and mobile application programming, 3D printing, digital manufacturing, etc.

Three Breton training schemes were selected:

The "Prépa numérique" scheme in Rennes (222,060 inhabitants), Brest (139,225 inhabitants) and Rostrenen (2,942 inhabitants), a small rural town in central Brittany. These three training courses were developed from the same initial project, so they have the same content, the same teaching methods and the same training schedules. The three training courses investigated started on 20 January 2020 and ended on 20 July 2020. Following the announcement of the confinement on 17 March 2020, the pedagogical team of the generic "Prépa numérique" training switched the three devices to distance mode overnight. Three types of digital tools were deployed in each device to facilitate the remote monitoring of learners:

- A platform for exchange and communication (Discord for Rennes and Brest; Groups.io for Rostrenen). These platforms enabled learners and trainers to exchange information and organise voice chat rooms.
- Various video-conferencing tools (Skype, Zoom, Teams, etc.) mainly used by the trainers to carry out remote courses and workshops.
- A file storage and sharing platform: a Google Drive (set up only for Rennes and Brest) and a Groups.io (for Rostrenen), whose function was to be able to share digital files (educational resources, documentation, and all kinds of digital content).

3.2 Operationalising Our Research

It is important to stress that training environments do not exogenously generate capabilities (Fernagu-Oudet, 2018); an environment proves to be enabling according to how it is used (Loquais, 2016). In this sense, what is important is not only the individual characteristics or those of the environments, but the modalities of interaction between the two. Thus, the factors of conversions can only be apprehended in a situation (Nagels, Tali and Abel, 2019). Therefore, the research presented is based on observations and 19 interviews

carried out face-to-face and remotely over the entire training session. Among the latter, four interviews were conducted with trainers and managers of the Digital Preparatory course. In addition, 15 interviews were conducted with trainees from the Brest, Rennes and Rostrenen facilities (five interviews per site). The participants were chosen on a voluntary basis. All interviews, except one (at the request of the interviewee), were recorded and then transcribed. Of these 15 interviews, ten were men and five were women, which is relatively close to the ratio of men to women in the training courses. Only four were under 25 years of age and three were over 50; six had a baccalaureate or equivalent, and nine had a lower baccalaureate (for more details on the interviewees, see Table 2 in the appendix).

These data were cross-referenced with in situ observations. However, following the announcement of the confinement, the observations were carried out remotely, using digital tools (notably via presence on the distance learning platforms presented above). Thus, the data from these observations were analysed in order to correlate them with the trainees' discourses

The analysis of the data was carried out using the MAXQDA software. The MAXQDA software allows for discourse analysis and the extraction of units of meaning to develop categories. The challenge of the data analysis was to identify, inductively, the factors related to distance learning engineering, which allowed learners to appropriate territorial resources, with a view to gaining the capacity to learn and to develop professionally. The analysis of the content of the collected data has thus allowed us to identify three conversion factors, allowing us to respond to our research challenge:

- The first conversion factor refers to the need to adapt the content of distance training to the needs of the territory's businesses in terms of digital skills
- Secondly, we note the importance of putting in place distance training engineering, favouring information, guidance, and support for trainees in the development of a post-training project
- The last conversion factor that we highlight is of an organisational nature and is directly interconnected with the two previous ones. It is a question of encouraging the territorialisation of distance training systems through the implementation of various partnerships with the aim of increasing the proximity between learners on the one hand and the local ecosystems of digital actors on the other.

4 Results

The three conversion factors identified correspond respectively to didactic, pedagogical, and organisational dimensions. These interact and influence each other. Together, they help to build capacity to engage with the training system and encourage professional development.

4.1 A Didactic Conversion Factor: Adapting Training Content to Territorial Needs

The importance of linking the content of the training with the real possibilities of pursuing a career in the region was particularly important in Rostrenen insofar as professional opportunities in the digital sector are much less numerous than in large cities. Consequently, during the training, some of the trainees did not see the interest in tackling certain themes such as digital mediation or digital manufacturing because they did not understand how these skills could enable them to increase their professional opportunities. On the other hand, they seemed to be more interested in learning about computer tools and discovering office software that would enable them to pursue careers in the service sector and/or in personal services.

> I don't see why I should learn 3D printing, there's only one Fab Lab in Rostrenen, and it won't be able to hire us all. On the other hand, I was interested in learning about the Office package. I used to be a medical secretary, so maybe it will be useful for me in the future. (Anaïs, interview extract, June 2021)

The cases of Rennes and Brest seem, at first sight, different insofar as the employment pool in the digital sector is relatively large and varied. However, the same need emerged for training to be consistent with the realities of the employment areas. In other words, that training should focus on themes that really lead to business needs, but also and above all that these professions should be accessible to people with little or no higher education.

> Yes, there is work in web development in Brest, I'm sure! However, what I'm wondering is: are they recruiting people like us? People who don't even have a high school diploma! I, for example, dropped out of school in high school. Do you think that with this training I can find a job in the Web field? We're at the end of the course and I still don't know. (Maël, interview extract, June 2021)

Our survey reveals that there was no specific adaptation of the training content to the territorial contexts, these were thought and conceived in an a-spatial way. The trainers of the "Prépa Numérique" schemes justify this by the fact that the training was intended to be "generalist" and "pre-qualifying". From this point on, we observe that the training content turned out to produce ambivalent effects:

Some trainees (more precisely, people who were comfortable with digital technology and described themselves as self-taught), showed a great capacity to self-direct their learning. Indeed, during the lock-in, some learners took the initiative to follow only the courses

that interested them to be able to go deeper into particular areas and acquire enough knowledge to consolidate post-training projects. This freedom to follow only the modules that they felt were of interest to them was tolerated by the teaching staff insofar as these choices could be justified in terms of individual projects and helped to encourage the trainees' commitment to the distance learning system.

Other learners, on the other hand, testify to a perceived lack of meaning regarding the purpose of the skills developed during the training. Individuals undergoing training who express this type of discourse were then faced with an inability to project themselves professionally, which sometimes led them to disengage from the training.

The difference between these two groups of trainees seems to lie in the fact that the first group was able to develop a post-training project independently. Then, regarding their professional objectives, they were able to choose from among the training modules offered by the "Prépa Numérique" schemes those they considered relevant. Consequently, the interviews reveal that the generalist aspect of the content did not have a significant impact on their training path. On the other hand, the learners in the second group do not seem to have had the same capacity to design a post-training project. Thus, overall, they were more dependent on the training content of the "Prépa Numérique" schemes. Moreover, as the content made available was generalist, non-professional and sometimes not very much in line with the professional outlets available, this may have been a negative conversion factor limiting commitment and professional development. In short, it appears that adapting training to the needs of the territory is an essential condition for implementing situations where learning is meaningful and which broadens the socio-professional opportunities of all trainees, especially the less autonomous.

4.2 An Educational Conversion Factor: Informing, Guiding and Accompanying in the Discovery of Local Digital Ecosystems

In correlation with what we have just mentioned, our survey highlighted the need to have sufficient knowledge of the digital ecosystem of the territory to which one belongs (the actors who make it up, their specificities, their organisations, their needs in terms of skills, etc.).

> There is no awareness of what exists, and what may be possible professionally. We don't know what companies are looking for. Are they looking for developers? Community managers? We don't really know what exists in Brest. What is the reality of employment (Caroline, interview extract, July 2020)

It emerged from the interviews that the lack of information about the digital sector has a deleterious impact on the ability to commit to the scheme and to develop a career plan. In this sense, our survey revealed multiple obstacles related to access to information about digital employment in the territories:

It appears that the digital professions are changing, technologies, software and programming languages are evolving rapidly. Moreover, the needs of territories are constantly changing. For example, during the survey, we were unable to meet trainers from the three "Digital Prep" schemes who were able to indicate precisely which digital jobs were in demand. The studies and territorial diagnoses on the issue of digital employment therefore seem to be perceived by the training players as not very enlightening and sometimes contradictory.

However, for the past ten years or so, at national and European level, speeches have been made claiming that the tension in the digital field, and more particularly in the web field, is such that there is a possibility for people with few qualifications to be able to enter this sector of activity (Cap Digital, 2015; European Commission, 2014; Dares, 2015). The scientific literature on this subject shows that the reality is more complex than it seems (Vicente, 2018). Indeed, other studies (INSEE, 2016; report on "needs and supply of training for digital professions") indicate that the skills shortage in the digital sector essentially concerns individuals with an engineering level and not people with few qualifications (like the people initially targeted by the schemes investigated). In this sense, Régis Granarolo, president of the professional association MUNCI (Association professionnelle des informaticiens et métiers du numérique), in an interview concerning the supposed shortage of developers, states that:

> It should be noted that these recruitment difficulties essentially concern the stereotyped and tailor-made profiles that our employers are looking for, i. e. young "multi-skilled" graduates at moderate salaries. (Régis Granarolo, President of the professional association MUNCI, 2013)

Therefore, faced with contradictory discourses, the learners testify to a lack of visibility on the possibilities offered by the territory at the end of the training. This element is an uncertainty that hinders perseverance in the training system as well as decision making concerning the elaboration of a future project.

However, some digital resources were created and disseminated at the end of the training with the aim of facilitating the professional orientation of the trainees of the three schemes (digital document informing about the possibilities of pursuing a qualification, about the organisation of orientation fairs and open days of digital companies). However, for most of the people interviewed, this was not sufficient and seemed to have happened too late in the training. The interviews with the various trainees emphasised that the dissemination of these resources should have been supplemented by individual distance support to enable the design of a post-training professional project.

> You hear that this is a promising sector in terms of recruitment, particularly for the job of web developer, but well ... They tell you that, but then you have nothing concrete. It's just word of mouth. You hear it everywhere: web development is a job in demand. Yes, but where? Why and how can I get started? A trainer to guide me, that's what I was missing. (José, interview extract, July 2020)

In summary, we see how necessary it is to think of distance teaching modalities to accompany the trainees to access and process territorial information. The stake of this factor of conversion is to allow the learners of the devices of the "Digital Prep" to build a realistic individual professional project after training, source of perseverance and motivation.

4.3 An Organisational Conversion Factor: Strengthening Links between Digital Professionals and Learners

The third conversion factor that our survey reveals corresponds to an organisational dimension, closely linked to the two previous ones, and consists of territorialising distance learning by developing links with local players (companies, associations, specialised training bodies, etc.). However, in a context of national confinement, this was particularly complicated. The visits and meetings initially planned were cancelled, although a few exchanges (three to four) with professionals were organised at a distance, but this was probably not enough.

> Because of the confinement, you can't go out, you can't go to open days, you can't organise interviews with professionals, and you can't go out, so it's obviously complicated to meet professionals. For me, it's a pity that there weren't more meetings with developers, that they could explain their job, how much they are paid, that kind of thing ... (José, interview extract, July 2020)

The lack of internships, meetings with professionals and visits to companies has a negative impact on the trainees' ability to develop a career plan. As a result, many interviews point to the lack of partnership with local actors working in the digital sector. According to them, this is an obstacle to involvement in the training scheme.

> As I said, in fact, I think that we really need to spend more time meeting actors in the field, working on the professional project. We should do this, in fact as soon as people enter the training. Because their commitment will depend on it. How can you ask me to be motivated, knowing that when I finish the training I'll be out of work, you know what I mean? That's the reality! That's why for me it's essential to have partnerships with companies. You must set up partnerships with companies that will take people on, that will hire them outright! (Stéphane, interview extract, July 2020)

Thus, our analysis reveals the extent to which it is necessary to involve professionals in a distance learning system to increase the trainees' possibilities for concrete action, which may be partially reduced by the switch to distance learning. According to the trainees interviewed, it seems that the establishment of partnerships could have contributed to the two factors of conversion mentioned above. Indeed, the partner companies and professionals would have been able to orientate the training content regarding the realities on the ground. In addition, they would also have helped to inform the trainees about the specificities of the digital professions in Brittany (programming languages and software used, professional codes, professional opportunities, etc.), which would have been a valuable aid to orientation. Finally, the trainees indicate that the implementation of partnerships would have been relevant to have recruitment commitments from companies in the sector, right from the start of the training.

While the health crisis partly explains the lack of links with digital professionals, during our survey we were able to observe other elements on this subject:

Funded via a call for projects from the Brittany Region, the three "Prépa Numérique" schemes were set up in just a few months. Thus, the trainers were recruited barely a month before the start of the training courses; this time span was obviously not enough to establish solid links with companies in the sector. Moreover, this requires a specific work culture, however, it can be seen that of the 8 trainers of the three "Prépa Numérique" schemes only one came from the world of vocational training, the others belonged to the world of scientific animation, higher education and social support. Moreover, none of the trainers was a digital professional and had no knowledge of the local ecosystems of digital actors.

In the end, it seems to us that the "distances" between training and employment induced by distance learning can be relativised, through meetings with professionals, visits to companies or work placements. Thus, the establishment of partnerships is a lever for encouraging closer relations between learners and professionals in the sector. Our survey highlights that the strengthening of proximity is a constitutive element of "empowering" distance learning environments; it participates in the two conversion factors mentioned above: the adaptation of content to the realities of the sector and the information and guidance of learners. In short, it is a key element in increasing learning and professional development opportunities.

5 Discussion

In the spring of 2020, faced with the health risks caused by the Covid 19 global pandemic, the French government decided to introduce a generalized lockdown. As a result, in the space of a few days, all activities open to the public had to be switched to remote access, which had a strong impact on the three "Prépa Numérique" training programmes. Consequently, this research proposes to question the capacity of engineering companies that have gone through the health crisis to forge links with the digital employment ecosystems to encourage the capacity to learn and develop professionally.

The shift to distance learning appears to have resulted in an overall lack of autonomy support for trainees, particularly in accessing territorial opportunities for learning and professional development. We identify a link between the strengthening of proximities on the one hand (concerning learners and digital professionals) and the increase in opportunities and freedoms to act on the other.

The notion of proximity has been worked on through the current of proximities (Pecqueur & Zimmerman, 2004; Torre, 2009). This field of research aims to objectify the way in which proximities can play a positive role in the coordination of economic agents. The

proximity current is part of an interactionist approach to the economy and seeks to characterise the different forms of interaction between agents, which may be spatial, relational, cognitive, or symbolic in nature. Generally, two types of proximity are distinguished: geographical and organised proximity.

Presented succinctly, geographical proximity refers to objectivable elements such as the distance per kilometre between two entities, the travel time necessary to cover a certain distance per kilometre. The analysis of geographical proximity allows us to look at the location of activities (Paquelin, 2011). Organised proximity, on the other hand, is of a relational nature; the issue is to be interested in the organisation and coordination of activities (Paquelin, 2011). Understood in this sense, organised proximity is developed through two logics: the logic of similarity (individuals share values and group together around a common frame of reference) and that of belonging (individuals group together according to their interactions) (Bouba-Olga & Grossetti, 2008). Thus, to quote the observation made by Jézégou (2019), it seems that there are 'possible distances in physical proximity and possible proximities in geographical distance'.

We have indeed identified that the inadequacy of the content to the specificities and needs of the territory, the absence of a clear vision of digital in Brittany, the lack of links with digital actors have contributed to increase the distance between learners and digital actors, which has generated incapacitating effects clearly stated by the trainees. Conversely, we can see how important it is, according to them, to think of the training environment as a space of intermediation to reinforce the organised proximities and, by way of consequence, the professional opportunities. In this sense, the setting up of an "empowering" distance learning environment must be aimed at developing capacities, understood here as the power to act anchored in a territory (Brittany) and not only in a branch of activity (digital in the broad sense). This seems to be particularly important for the trainees with the most difficulties, the most autonomous ones having done well overall. Insofar as they had the internal conversion factors enabling them to carry out territorial studies themselves, to contact local players and to identify really accessible professional outlets. In short, the survey has made it possible to highlight the extent to which it is necessary to think about the territorialisation of distance learning systems to develop the space of possibilities. This point, which may appear to be a commonplace in relation to vocational training, is nevertheless an aspect often ignored in distance learning. The results of the action (three months after the end of the training) are also indicative of this need:

Brest (26 trainees completed the training): 5 trainees integrated a qualification training, 2 found a job (of which 1 moved outside Brittany), 8 signed an AAQ contract[3] (Accompaniment to Access to Qualification), all the other trainees were outside employment and training.

3 The Brittany Region's aid for support towards qualification is intended for people who have validated a professional project within the framework of a training course. It aims to secure access to a qualification.

Rennes (15 trainees completed the training): 2 trainees integrated a qualification training, 1 found a job as a data entry officer, 5 signed an AAQ contract (Accompagnement à l'Accès à la Qualification), all the other trainees were outside employment and training.

Rostrenen (10 trainees completed the training): 1 learner integrated a qualification training, 1 has a project to create a company, 1 found a permanent job (not related to digital), all the other trainees were outside employment and training.

In summary, the purpose of our article is to underline the importance of thinking about distance training engineering capable of ensuring an intermediation function, with a view to favouring the deployment of proximity and consequently participating in the increase of learning and professional development capacities. A research partnership has been set up with the investigated systems, and the work carried out has made it possible to feed this collaboration by providing avenues for improvement to the "Digital Prep" systems. Thus, among the adjustments made to the current action, many partnerships have been developed and implemented.

6 Annexes

Table 1: The audiences of the "Prépa Numérique en Bretagne" during the 2020 session (April, 2021)

Prépa Numérique Brest	Prépa Numérique Rennes	Prépa Numérique Rostrenen
29 trainees	15 trainees	17 trainees
33.33% under 26 years old	33.33% under 26 years old	55.55% under 26 years old
83.33% baccalaureate level or below	66.66% with a baccalaureate or below	94.4% baccalaureate level or below
26.66% from QPV[4]	26.66% of trainees live outside the agglomeration	100% from ZRR[5]
36.66% women	26.66% women	50% women
3 dropouts (for personal reasons or return to work)	No dropouts	7 dropouts (for personal reasons or return to work)

4 Priority neighbourhoods of the city policy.

5 Rural revitalisation zone.

Table 2: Trainees interviewed for the article (April, 2021)

Interviewees	Background information
José	45 years old, arrived in Spain at the age of 19, trained in wine-making and then did a series of "odd jobs" (Prépa Numérique de Rennes)
Stéphane	31 years old, BTS level in pastry (Prépa Numérique de Rennes)
Caroline	37 years old, third level of education, long-term job seeker (Prépa Numérique de Brest)
Maël	22 years old, holder of a baccalaureate in customer relations (Prépa Numérique de Brest)
Anaïs	22 years old, third year level, worked for a few months in the food industry (Prépa Numérique de Rostrenen)
Jean	46 years old, baccalaureate level, worked several years in Ireland (Prépa Numérique de Rostrenen)

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