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Special issue
The “new normality”:
Digital technologies
and learning environments
beyond the emergency

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Editorial

The “new normality”: Digital technologies and learning environments beyond the emergency

Carl Bereiter*, Nadia Sansone**

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Education systems, like practically every other kind of institution, were unprepared for the Covid-19 pandemic. The need to minimize face-to-face contact, however, impacted education probably more than any other occupation. This is because of the nature of communication in educational settings. On one hand it involves one-to-many communication (teacher to students), which can be done through media that do not involve face-to-face contact. But at the same time, depending on class size, there can be some or much back-and-forth communication between teacher and individual students or between students themselves. This partly overcomes the deficiencies of one-to-many communication, enabling students of varying dispositions and abilities to benefit from individual attention. If the pandemic had struck 30 years earlier, education would have been largely confined to the one-to-many kind of communication that had prevailed since the beginning of mass education. The emerging possibilities of network communication would have played little or no part in education's response to the pandemic. Thus, things could have been worse for education if the pandemic had occurred back then, and probably much worse for the students most dependent on individual attention.

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So, when we say that education systems were unprepared for the Covid-19 pandemic we do not mean that they had no resources for dealing with it. Distance education using the internet and a variety of ways that internet communication was used in face-to-face education had been around long enough that there were many educational activities available and a body of know-how for managing such matters as co-operative learning, assessment, and community formation among students who only meet online. But educators were unprepared for the impact on wellbeing and cognitive development resulting from month upon month without the human contact afforded by ordinary schooling. If nothing else, the pandemic has brought about a fuller public awareness of schooling's many-faceted role in human development.

The pandemic has not been a time of great innovation in education, thus raising doubts about the popular notion that innovation flourishes at the "edge of chaos". But, except in medicine directly concerned with covid, this does not seem to have been a great time for socially important innovation anywhere. For education to come away from the disruption of the Covid-19 pandemic with so little in the way of new ideas and new knowledge speaks to the serious need for what information scientists are calling an "innovation infrastructure".

The articles of this special issue explore the ways in which education agencies can fit into this infrastructure, starting from Sansone and Grion which focus on the need to enhance university participatory learning practices, by conceiving students' assessment as an integral part of the teaching-learning process. To this aim, the authors describe the practice-based research that led them to revise the *Triological Learning Approach* into the *Triological Learning & Assessment Approach*, considered to be a valuable framework to innovate Higher Education. From practice to theory and back to practice, the following articles highlights the many peculiarities that the pandemic generated across countries and contexts. Trevisan et al show the results of an international survey in which, apart from a common perception of the institutional support and professional training for distance education (DE), US faculty staff reported being more at ease with DE than the Italian colleagues and try to analyze possible causes. In the same

direction of discriminating between challenges and opportunities, Amenduni et al found how VET teachers describing dimensions as *assessment, students' empowerment and self-directed learning* in terms of opportunities had higher levels of competence in the respective DigCompEdu areas compared to those who perceived the same topics as challenges.

Galuppo, Ripamonti and Bernozzo presents an explorative study on teachers' and students' identity re-configurations in the remote university, from which it appears that being connected seems to be a legitimating condition for students' and teachers' identities. Three main ways of being connected are described: connection as accessibility, connection as engageability, and connection as productivity. Cacciamani, Mangione and Pieri report findings from the project "Classi in rete", promoted by INDIRE, in which 22 teachers from Abruzzi small schools used the Knowledge Forum (KF) environment and gradually appropriated the Knowledge Building perspective as shown by the increase, during the training, of reading and writing activity and by the correlations among reading, writing, and improving notes activity. Given the crucial role of an appropriate Digital Mindset (DM) in university learning contexts mediated by technology, Gemmano, Ligorio and Manuti describes the development and validation of the Digital Mindset Questionnaire (DMQ), an instrument aimed at investigating the DM in a sample of 396 Italian university students.

Editorial

Les systèmes éducatifs, comme pratiquement tous les autres types d'institutions, n'étaient pas préparés à la pandémie de Covid-19. Cependant, la nécessité de minimiser les contacts en face à face a probablement eu plus d'impact sur l'éducation que sur toute autre profession. Cela est dû à la nature de la communication dans les milieux éducatifs. D'une part, il s'agit d'une communication un à plusieurs (professeur à élèves), qui peut se faire par le biais de médias qui n'impliquent pas de contact en face à face.

Mais en même temps, selon la taille de la classe, il peut y avoir une ou plusieurs communications aller-retour entre l'enseignant et les élèves individuels ou entre les élèves eux-mêmes. Cela surmonte en partie les lacunes de la communication un à plusieurs, permettant aux étudiants de diverses dispositions et capacités de bénéficier d'une attention individuelle. Si la pandémie avait frappé 30 ans plus tôt, l'éducation aurait été largement confinée au type de communication un à plusieurs qui prévalait depuis le début de l'éducation de masse. Les possibilités émergentes de la communication en réseau n'auraient joué que peu ou pas de rôle dans la réponse de l'éducation à la pandémie. Ainsi, les choses auraient pu être pires pour l'éducation si la pandémie s'était produite à l'époque et probablement bien pires pour les élèves les plus dépendants de l'attention individuelle.

Ainsi, lorsque nous disons que les systèmes éducatifs n'étaient pas préparés à la pandémie de Covid-19, nous ne voulons pas dire qu'ils n'avaient pas les ressources pour y faire face. L'enseignement à distance utilisant Internet et les diverses façons dont la communication Internet était utilisée dans l'enseignement en face à face existaient depuis assez longtemps pour qu'il y ait de nombreuses activités éducatives disponibles et un ensemble de savoir-faire pour gérer des questions telles que l'apprentissage coopératif, l'évaluation et la formation de la communauté parmi les étudiants qui ne se rencontrent qu'en ligne. Mais les éducateurs n'étaient pas préparés à l'impact sur le bien-être et le développement cognitif résultant de mois après mois sans le contact humain offert par l'école ordinaire. Au moins, la pandémie a entraîné une plus grande sensibilisation du public au rôle multiforme de l'école dans le développement humain.

La pandémie n'a pas été une période de grande innovation dans l'éducation, ce qui soulève des doutes sur la notion populaire selon laquelle l'innovation s'épanouit au «bord du chaos». Mais, sauf dans la médecine directement concernée par le covid, cela ne semble pas avoir été un bon moment pour une innovation socialement importante où que ce soit. Le fait que l'éducation sorte de la perturbation de la pandémie de Covid-19 avec si peu de nouvelles idées et de nouvelles connaissances témoigne du besoin sérieux de ce que les scientifiques de l'information appellent une "infrastructure d'innovation".

Editoriale

I sistemi educativi, come ogni altro tipo di istituzione, sono stati colti impreparati alla pandemia da Covid-19. La necessità di ridurre al minimo i contatti fisici, tuttavia, ha impattato l'istruzione probabilmente più di qualsiasi altro contesto. Ciò è dovuto alla natura della comunicazione e delle interazioni nei contesti educativi. Da un lato, infatti, si tratta di un tipo di comunicazione uno-a-molti (dall'insegnante agli studenti) che può essere sostituita dagli strumenti che non prevedono il contatto faccia a faccia. Dall'altro lato, però, a seconda delle dimensioni della classe, gli scambi possono essere bidirezionali (dall'insegnante agli studenti e dagli studenti all'insegnante) o orizzontali (tra gli studenti stessi). Se la pandemia ci avesse colpiti 30 anni fa, probabilmente l'istruzione sarebbe stata in gran parte confinata a quel tipo di comunicazione uno-a-molti prevalente all'inizio dell'istruzione di massa – e forse non solo allora. Tuttavia, quando diciamo che i sistemi educativi erano impreparati alla pandemia non significa che non avessero risorse per affrontarla. Le possibilità interattive e didattiche emergenti dalla comunicazione in rete, così come le proposte educative e l'intero corpus di conoscenze relativo – ad esempio – all'apprendimento cooperativo, alla formazione e valutazione delle comunità online, esistono da diversi decenni. Insegnanti ed educatori, però, non potevano prevedere l'impatto sul benessere e sullo sviluppo cognitivo risultante da mesi privi di quel contatto umano offerto dalla normale scolarizzazione. Se la pandemia, quindi, non si è tradotta in un momento di grande innovazione nell'istruzione, ha sicuramente stimolato una maggiore consapevolezza pubblica del ruolo multiforme che la scuola riveste nello sviluppo umano.

Questo Special Issue, partendo da esperienze e ricerche legate alla pandemia da Covid-19, intende esplorare i modi in cui – lontano dall'emergenza critica – le agenzie formative possano rivedere sé stesse alla luce di un più ampio quadro che definiamo di “infrastruttura dell'innovazione”.