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Editorial

Stefano Cacciamani*, M. Beatrice Ligorio**

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Potentialities and risks of digital ubiquity

The VI Congress of the Collaborative Knowledge Building Group (CKBG), held in Naples in 2017, was entitled “Ubique and intelligent: technologies and people”. This title was purposely chosen to reflect on the ways digital technologies – which have become smaller, more portable, intuitive and powerful – are changing our daily lives. This issue of *Qwerty* explores the pervasiveness of digital technologies by engaging with the nature of innovation implied by ubiquity, exploring critical and problematized perspectives, and considering the cultural implications of technological ubiquity in a range of contexts: school, university, and everyday life.

Erstad (this volume) conceives learning ‘ecologically’ and explores how studying students’ activity across at and beyond-school can make their ‘learning lives’ visible. ‘Learning lives’ refers to the interconnections between learning, identity and action in life trajectories across different times and places. Erstad highlights how exploring life trajectories of intra and extra-curricular learning can support a more nu-

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anced and complex understanding of the knowledge-building process, and of how students use technology to cross borders between different contexts.

The complexity of and opportunities afforded by contemporary educational contexts are themes that emerge in two other papers in this issue, which explore the use of peer feedback and the concept of orchestration. Peer feedback is a communication process in which learners talk to each other about their performance in relation to the standards required by an activity. Cacciamani, Perrucci and Iannaccone (this volume) propose a coding scheme to analyze the effects of peer feedback in the context of university teaching. The authors suggest that this tool can be useful for disseminating university ‘ways of working’ – by assigning students an active role in assessing peer products, they are empowered through agentic participation in knowledge building. The concept of orchestration (Mazza, Ligorio, & Cacciamani, this volume) on the other hand, considers the teacher’s intentional and systematic organization of various artifacts available in their classroom. This concept is not innovative in itself but considering how orchestration can be deployed across different contexts supports an ‘ecological’ vision of what happens in the classroom by expanding the focus beyond technology use. This research examines the orchestrations that emerge during the use of a new learning platform and considers how perceptions of learning technology may be affected by introducing such a platform.

In addition to affording innovation, the diffusion of technology also brings with it some risks. These include online data security (Frison & Surian, this volume) and *sexting* (Migliorato et al., this volume). The Edu4Sec project – Effective Education for Improving Data Security Awareness – aims to promote secondary school students’ awareness of data security issues that arise from disseminating information in digital spaces. The authors propose several targeted interventions aimed at modifying online behaviors such as purchases and downloading applications. *Sexting* is another example of the fluidity and interwovenness of student learning lives and contexts. Not only does this practice affect at-school performance and engagement, but also students’ identity, self-

hood, and relationships with others. The article highlights interesting correlations between psychological dimensions such as self-esteem, depressive symptoms, cognitive development, and adaptation.

Some articles in this issue foreground the re-emergence of the gender issues that dominated literature in the 1970s and 1980s, especially in relation to anonymity. Both Migliorato et al. and Monaci and De Gregorio, address this theme as a cultural issue, reflecting on ways to manage mediated interactions and on how risks and potentialities of anonymous communication are perceived. Gender differences emerge as complex: there are different sensitivities to the themes, the emotional tone of communication, and to the gender of message recipients.

Overall, this issue of *Qwerty* examines opportunities and problems that coexist as a result of ubiquitous technologies in and across various educational and everyday contexts. The papers in this issue paint a picture of the multifaceted and complex topics that arise from technological pervasiveness. While pervasiveness does not automatically make users more intelligent, it does afford more complex behaviors. It is the role of researchers to interrogate these complexities and open up possibilities for the intelligent use of technologies.

Editorial

Le VI^e Congrès du CKBG, qui en 2017 s'est tenu à Naples, était intitulé "Ubiques et intelligentes: technologies et personnes", avait pour objectif d'ouvrir une réflexion sur la manière dont la diffusion généralisée des technologies numériques modifie notre vie quotidienne. La question de l'omniprésence des technologies numériques dans notre quotidien est abordée dans ce numéro de *Qwerty*, qui se concentre sur certaines dimensions spécifiques de l'innovation, sur certaines questions et sur certains aspects culturels liés à ces innovations, en analysant différents contextes.

Ainsi, l'article d'Erstad relie le monde de l'enseignement au milieu extrascolaire et explore une conceptualisation de l'apprentissage dans une vision "écologique". L'article analyse les trajectoires de l'apprentissage intra et extrascolaire pour mettre en évidence le rôle de la mé-

diation des technologies dans les interconnexions entre différents contextes de la vie des étudiants pendant le développement du processus de construction des connaissances.

Dans leur article, Cacciamani, Perrucci et Iannaccone propose la construction d'un schéma de codage pour analyser les effets de la rétroaction par les pairs dans le contexte universitaire. Cette modalité de travail engage les étudiants dans l'évaluation de produits entre pairs et habilite la notion d'agency dans le processus de développement des connaissances. Le concept d'orchestration, utilisé par Mazza, Ligorio et Cacciamani dans leur article de ce numéro de *Qwerty*, est ici étendu à différents niveaux d'enseignement et à différentes disciplines. La contribution propose en effet d'examiner les orchestrations émergentes lors de l'expérimentation et les modifications apportées à la perception des technologies numériques.

La diffusion des technologies comporte certains risques. Celles-ci incluent la sécurité des données en ligne (Frison et Surian) et le sextage (Migliorato et al.). Le projet Edu4Sec – Une éducation efficace pour améliorer la sensibilisation à la sécurité des données – vise à sensibiliser davantage les élèves de l'école secondaire à la question de la sécurité des données et de l'information diffusée dans les espaces numériques. Le phénomène du sextage mérite toute notre attention dans la mesure où il peut avoir des conséquences importantes dans divers domaines: de la performance scolaire aux questions identitaires et relationnelles.

Certains articles du numéro soulignent la réapparition de la problématique du genre. Dans l'article de Migliorato et al. et celui de Monaci et De Gregorio, cette thématique est traitée en tant qu'aspect culturel qui se reflète dans la manière de traiter les interactions médiatisées et dans la manière dont les risques et les potentialités de ce type de communication sont perçus. Les différences entre les sexes apparaissent comme complexes: sensibilité différente aux thèmes, au ton émotionnel de la communication et au sexe de ceux qui reçoivent le message.

Ce numéro de *Qwerty* examine ainsi les opportunités et les problèmes liés à l'utilisation des technologies numériques dans différents contextes, allant de l'éducation à la vie quotidienne. Il apparaît alors que l'omniprésence de la technologie, qui est multiforme, évidemment, ne nous rend pas forcément plus intelligents, mais permet des

comportements plus complexes. Il appartient dès lors au chercheur d'effectuer des analyses précises et de proposer des solutions intelligentes dans l'utilisation des technologies.

Editoriale

Il VI Congresso del CKBG svoltosi a Napoli nel 2017 era intitolato “Ubique e intelligenti: tecnologie e persone”, proprio allo scopo di aprire una riflessione su come l'ampia diffusione delle tecnologie digitali sta cambiando la nostra vita quotidiana. Il tema della pervasività delle tecnologie digitali è ben presente in questo numero di *Qwerty*, che si focalizza su alcune specifiche dimensioni di innovazione, su alcune problematiche e alcuni aspetti culturali connessi a tali innovazioni, analizzando diversi contesti.

In particolare, l'articolo di Erstad connette scuola ed extra-scuola ed esplora una concettualizzazione di apprendimento in una visione “ecologica”. L'articolo analizza traiettorie di apprendimento intra ed extrascolastico per evidenziare il ruolo della mediazione delle tecnologie nelle inter-connessioni tra diversi contesti di vita degli studenti mentre si dipana il processo di costruzione di conoscenza.

L'articolo di Cacciamani, Perrucci e Iannaccone propone la costruzione di uno schema di codifica per analizzare degli effetti del peer feedback nel contesto universitario. Tale modalità di lavoro impegna gli studenti in un'azione di valutazione dei prodotti tra pari e potenzia l'agency nel processo di costruzione di conoscenza. Il concetto di orchestrazione, utilizzato nel contributo di Mazza, Ligorio e Cacciamani, è qui esteso a diversi livelli scolastici e a diverse discipline. Il contributo, infatti, si propone di esaminare le orchestrazioni emergenti durante la sperimentazione e come si modifica la percezione delle tecnologie digitali.

La diffusione delle tecnologie porta con sé alcuni rischi. Tra questi, la sicurezza dei dati online (Frison & Surian) e il *sexting* (Migliorato et al.). Il progetto Edu4Sec – Effective Education for Improving Data Security Awareness – è finalizzato a promuovere, negli studenti

di scuola secondaria superiore, maggiore consapevolezza sul tema della sicurezza di dati e delle informazioni diffuse negli spazi digitali. Il tema del *sexting* richiede grande attenzione in quanto tocca non solo la sfera della performance a scuola ma anche più in generale aspetti identitari e relazionali.

Alcuni degli articoli del numero mettono in evidenza il riemergere della questione gender. In Migliorato et al. e in Monaci e De Gregorio questo tema è affrontato come un aspetto culturale che si riflette sul modo di affrontare le interazioni mediate e su come vengono percepiti rischi e potenzialità di questo tipo di comunicazione. Le differenze di genere emergono come complesse: diversa sensibilità ai temi, al tono emotivo della comunicazione e al gender di chi riceve il messaggio.

Nell'insieme, questo numero di *Qwerty* esamina opportunità e problemi implicati dall'uso delle tecnologie digitali in diversi contesti, da quelli educativi a quelli della vita quotidiana. Emerge un quadro in cui la pervasività è poliedrica e complessa e, ovviamente, non ci rende automaticamente più intelligenti, ma permette comportamenti più articolati. Sta al ricercatore effettuare analisi accurate e offrire soluzioni intelligenti nell'uso delle tecnologie.