30 Years of Ideas, Resources and Learning

Interview by Anne-Marie Paquette

The Centre collégial de développement de matériel didactique (CCDMD) is celebrating its 30th anniversary this year. Today still, it is a key player in the production of digital and printed pedagogical resources in the college network. Thirty years after its founding, where does the Centre stand today and what does the future hold? The CCDMD's director, Cathie Dugas, sheds light on the successes and challenges that lie in the development of specialized didactic materials.

"You have to love learning and never stop learning to evolve in this field," says she who has been at the head of the CCDMD since 2013. For Cathie Dugas, who made a career in web development in the banking and municipal sectors before making the leap to education, openness to change and continuing education are paramount when it comes to the internet universe. *"When I was working in the banking industry, the web was a hotbed of activity and I had to develop digital information and transactional environments*, recalls Cathie Dugas. *I jumped in headfirst and really got hooked."* This interest in digital engineering incited her to take a course in educational technology, which led her to web development at Collège de Maisonneuve, then to the CCDMD as a project manager for two years, before becoming the Centre's director.

At the Centre, Cathie Dugas oversees a permanent team of a dozen people whose mandate is to meet the needs of more targeted communities in the development of print and digital didactic materials, educational software and websites, and specialized materials for language improvement. *"Unlike our digital resources, which are intended for all programs and audiences, the print textbooks we produce address specific needs not covered by private publishers."* Among the more niche examples, one might think of the thanatoplasty manual—the only French-language textbook on integumentary repairs—or the guide on the organoleptic qualities of food, a must-have for anyone training for the culinary professions and wanting to sharpen their sensory acuity. Several other specialized resources have been added to the catalogue, e.g., on tonal music, fire safety, animal cells or the programming of connected objects.[1]

Of course, more general products useful to a variety of disciplines are also available free of charge,[2] for example a platform for online deliberation (Dlibr), a tool facilitating learning of specialized vocabulary (Crisscross Words) or an interactive tutorial to help students cite sources correctly (Cite It!).

The CCDMD in numbers

83,000
media objects (photos, illustrations, videos, documents)

124
textbooks

136
websites

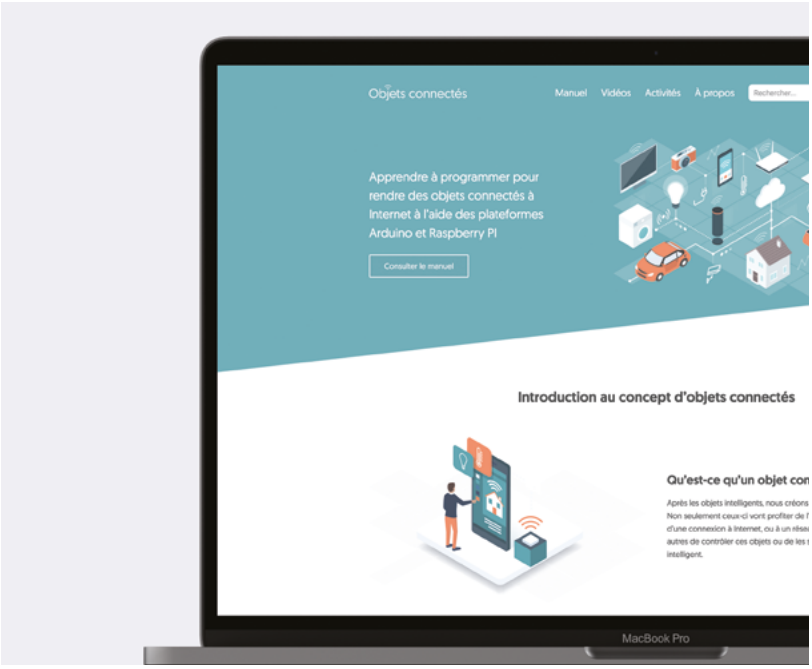
20
other resources
(applications, software, games)

+ than 1,200,000
unique visitors of the CCDMD's web catalogue per year

31
Minister's prizes for higher education in 30 years

[1] See the article "Daring to Create Digital Resources" by Maryse Mongeau on p. 66 of this issue of *Pédagogie collégiale*, which documents the process of creating the recently published digital textbook *Objets connectés* in collaboration with the CCDMD.

[2] Readers interested in exploring all the products (manuals, software, websites) developed by the CCDMD over the years can consult the online catalogue [ccdmd.qc.ca/catalogue].



Source: CCDMD

The CCDMD's flagship resources are often labelled "French." While it is true that the Centre is recognized in the network for its French-language improvement resources, it would be wrong to assume that this discipline takes precedence over others. *"French-language improvement resources are one niche among others for the CCDMD, but they enjoy a high profile thanks to the Réseau des répondants et répondantes du dossier français (Réseau Repfran) and the Centres d'aide en français (CAF), communities of practice that are very active within the college network."* It must be said that the CCDMD organizes, with a host college, the annual meeting of CAF coordinators (Intercaf), which brings together between 80 and 100 people from the network every year. *"The Intercaf serves as a sort of incubator for ideas*, says Cathie Dugas. *It's an ideal time to gain insight into the specific needs of this group in terms of teaching materials. This is what has allowed us to produce, from the very beginning of the Centre, many resources that are now used throughout the Francophonie. That said, the CCDMD catalogue offers a total of 280 resources, in French and English, for a variety of disciplines and in a variety of formats."*

Tuned in to the needs of the network

The annual call for projects offers the opportunity to anyone who wishes to do so to submit a project for the production, adaptation or translation of a resource useful for learning and teaching one or more competencies in a college program of study. In recent years, an average of 15 projects have been submitted annually under this call. Of these, nearly two-thirds are retained by the selection committee and proceed to the development stage with the CCDMD. *"The projects selected are of course those that meet the criteria of the call, but also those that have received favourable support from several colleges offering the same program. It is very important for us to ensure that the project is in line with the needs of the network,"* says the director.

After the initial meeting with the authors, the very first step in the project consists of formal consultation (through surveys, focus groups, needs specification documents) with several teachers representing the same program, and sometimes even with students, in order to agree on the essential content to be included and on the form that the didactic material will take. Several specialists from the CCDMD, and sometimes even external experts, join in at various stages of the project, including editorial support, scientific editing, mock-up development, design development, interactive storyboarding and video production. *"Teachers are often surprised to see so many people involved in the production of a pedagogical resource,* says Cathie Dugas. *It takes a lot of people and requires excellent collaboration between all team members, facilitated by the CCDMD project manager."*

A project can easily take two years to complete. *"There is normally a two-year timeframe to produce the resource, but this can vary depending on the volume of content and the complexity of the resource to be produced,* explains the director. *For digital pedagogical resources, not only do we need to ensure that the editorial and formal directions chosen at the outset have been respected, but we also need to validate the resource's compliance and certify that it meets functional requirements, now including accessibility standards."*

Immense technological challenges

The production of such a large number of resources, over three

Source: CCDMD

decades, inevitably brings its share of technological challenges. The evolution of programming languages and the longevity of content are major issues that have become increasingly important over the past decade, particularly with the increase in accessibility standards in Quebec and Canada and the announced death of Adobe Flash software. "*The obsolescence of certain languages and the obligation to comply with new production rules are daily challenges for the Centre,* explains the director. *For example, Web content accessibility standards for users with functional limitations (e.g., attention deficit disorder or inherited colour vision deficiency) have evolved over time, and that's good, because it's beneficial for all internet users, but it also requires training on these new features and implementing them in the projects we develop.*" Over the past two years, the CCDMD has integrated these compliance rules with the help of a specialist and provided the necessary professional development for all team members. "*We are now ready to incorporate these compliance rules into our new resources.*"

Despite all the precautions taken, technological obsolescence means that the Centre must constantly transform or upgrade its resources, which is no small feat. "*The end of Flash in 2020 was a major blow for the CCDMD. We had over 50 educational games developed in Flash. This was important content for our users. We're talking about hundreds and hundreds of questions integrated within game activities,* she recalls. *So, we decided to tackle the challenge. We've been gradually bringing these games back into other, simpler environments, like HTML. And the good news is that we're getting there!*" Since resource sustainability is also one of the CCDMD's mandates, the Centre also supports projects

to update resources or reissue previously produced textbooks. *"A list of resources requiring technological or content updates, prioritized according to the number of users, the complexity of the work to be done and the human and financial resources required, exists and is updated as migrations are completed."*

Award-winning resources

Over the years, no fewer than 31 Minister's prizes for higher education have been presented to CCDMD authors. The Educational Resources component of these awards recognizes the inventiveness and engagement of those who take on the demanding challenge of creating didactic materials. *"These awards are a source of pride for the CCDMD, but they are especially important to the authors because they recognize their work. It takes so much time and effort to develop a quality didactic resource!"*

When asked what her favourite resource is, Cathie Dugas is cautious. *"It is difficult for me to identify a single resource. I have a deep attachment to several of our products, and also to the events we organize."* Still, she spontaneously evokes *The World of Images*, an intercollegiate photo contest, known before 2011 as *Québec en images*, which aims to encourage the next generation of photographers and facilitate the production and sharing of quality photographs in education. *"Since the first edition of the contest, more than 17,000 photos have been submitted by more than 3,000 students from most institutions in the college network. That's quite an impressive number,* notes Cathie Dugas. *I guess that's my favourite resource! Especially seeing the youngsters at the awards ceremony, accompanied by their parents, who come to thank us. It's full of emotion."* For the past two years, the contest has also been open to the staff of the Quebec college network. Thanks to everyone's contributions, an online directory of more than 83,000 media objects (photos, illustrations, videos, documents) is available free of charge for the creation of teaching materials in the context of college education.[3]

What lies ahead for the CCDMD in the coming years? *"The production of new pedagogical resources, certainly, and many other technological challenges, most certainly,"* says Cathie Dugas. One example is the growing scientific and pedagogical interest in artificial intelligence (AI) in education, especially since the recent release of ChatGPT. She says the scope of action is endless, both in terms of AI and virtual reality, for an organization like the CCDMD. *"Virtual reality is slowly but surely being integrated into the learning and assessment of specific skills,* she says. *And the creation of active learning experiences in increasingly immersive worlds can certainly be useful in the development of pedagogical resources."* As for artificial intelligence, she says the potential is immense, but still little known in the education sector. *"At the Centre, we have already worked on automated evaluation systems through second language placement tests, but this is only the tip of the iceberg today. The use of intelligent agents, for example conversational agents like ChatGPT, to integrate tons of data will definitely impact assessment. The field is constantly evolving, and we need to monitor it closely."* Enthusiastic about change and the ongoing learning it entails, the CCDMD director adds, *"As long as there are pedagogical practices, disciplinary knowledge, and evolving technologies—three fantastic things to experiment with—we will be relevant."* ▬

[3] The photograph by Clara Hupé on the cover of this issue of *Pédagogie collégiale* submitted to the 2020-2021 World of Images intercollegiate photo contest.

With an educational background in administration, educational technology and organizational management, **Cathie Dugas** has been the director of the CCDMD since 2013 after having been a project manager at the Centre for two years prior. Before that, she worked for more than 15 years in the field of digital communications and web development for organizations such as the City of Montreal and the Laurentian Bank.

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