

SNSF Scientific Exchange: A Roadmap for Open Education in Switzerland: First Steps – Data from the Delphi survey (questions 9-23) – May 2022



Economic level	
How do you understand Open Education at the economic level?	
Open education operates differently from the "market". Rather than treating education as property and a commodity that is bought and sold it treats education as a shared global resource with value beyond monetary value. That said open education can generate large financial savings. Sharing and collaboration reduce duplication of effort across the education system. Open textbooks have already been proven to save students millions of dollars. Open education can reduce the overall total cost of education. However it's value extends beyond financial ROI. It's greater value is in making education available to all peoples. It is a tide that rises all boats. It is adaptable, localizable, translatable and maximizes academic freedom.	Canada
Il s'agit de réduire les inégalités d'accès à la connaissance et à l'éducation liées à des problèmes économiques (pas de matériel scolaire, formations des enseignantes et des enseignants lacunaires ou trop brèves) par le partage des ressources mais aussi par l'accès au numérique et plus globalement et idéalement par une distribution équitable des richesses, donc par l'abolition du néolibéralisme... EN : It is a question of reducing inequalities in access to knowledge and education linked to economic problems (no school materials, teacher training that is incomplete or too short) through the sharing of resources, but also through access to digital technology and, more globally and ideally, through an equitable distribution of wealth, and therefore through the abolition of neoliberalism...	CH
OE is a part of systemic changes which happen at both economic and educational levels.	Canada
Open education reduces the waste due to redundancies, I suppose costs can be cut by 100 with qualitative cooperation	CH
Sharing plans, technicals, formulas, recipes, will boost creativity.	CH
If done on massive scale, open education could help both students and institutions save money. However, there is a risk that incentives for creating textbooks or other resources will be gone. Free mass education is another problem. E.g. MOOCs are cost effective but cannot provide quality education. Authors do have to get recognition, both financial and in terms of promotion, etc. Administrators who coordinate to open source infrastructure also need to be financed. So someone has to pay. If done wrong, e.g. with a large bureaucracy, the global cost will not go down and even go up. Therefore, in order to replace some of the existing system by OER, we must find a model that provides incentives for authors and a publication infrastructure that is efficient and low cost. I don't know how to create quality mass education.	CH
Education and Health are the two core missions of governments / states. So, it should not be considered at an economic level. Good education and open education have however a large impact on the economy by strengthening the competences of the citizen.	CH
Open isn't free. It's very expensive and demanding to create, share and use open education resources. Economic models are very often partially open. At a certain point, someone has to pay for the service.	CH

Are there business models that you consider sustainable? Could you please elaborate by naming them and explaining roughly how they function?	
<p>This is a field of work that needs more investigation. For that investigation to go well it needs to start with an appropriate set of questions. Here are corollary questions I think are relevant. Is the current non-open business model for education sustainable? Does "public education" have a business model? If so how does it work and how does open education change it? Is "business model" the right way to frame this issue? A business model implies development of products and services for commercial sale. Is that what education is? Open source software created an entirely new market and ecosystem. How is open education similar? Libraries and museums have long served the needs of community through open sharing? How does their business model work? There are many successful "business models" that utilize open - see Made With Creative Commons for example.</p>	Canada
<p>L'économie circulaire / solidaire : " un système économique d'échange et de production qui, à tous les stades du cycle de vie des produits (biens et services), vise à augmenter l'efficacité de l'utilisation des ressources et à diminuer l'impact sur l'environnement tout en développant le bien être des individus ". L'économie féministe : "L'économie féministe analyse les interactions entre le genre et l'économie. De ce fait, elle intègre dans son analyse les parties de la sphère productive qui ne sont pas régies par le marché ou qui ne sont pas rémunérées et étudie les logiques qui sous-tendent les couples conceptuels traditionnels tels l'économique et le social, le productif et le reproductif, le masculin et le féminin, la gratuité et la rémunération ou encore le public et le privé. L'économie féministe analyse aussi les notions de patriarcat et de capitalisme en tant que formes de domination interdépendantes. Dans ce cadre conceptuel, elle s'interroge sur les modalités de répartition et d'usage qui sont faits des biens, du revenu, du pouvoir, du savoir, et du corps lui-même."</p> <p>EN : Circular / solidarity economy: "an economic system of exchange and production which, at all stages of the life cycle of products (goods and services), aims to increase the efficiency of resource use and decrease the impact on the environment while developing the well-being of individuals". Feminist economics: "Feminist economics analyses the interactions between gender and the economy. It therefore includes in its analysis those parts of the productive sphere that are not governed by the market or that are not remunerated, and studies the logics underlying traditional conceptual pairs such as economic and social, productive and reproductive, masculine and feminine, free and remunerated, or public and private. Feminist economics also analyses the notions of patriarchy and capitalism as interdependent forms of domination. Within this conceptual framework, it questions the ways in which goods, income, power, knowledge, and the body itself are distributed and used."</p>	CH
<p>Use OE to solidify business, innovation, and knowledge ecosystems. Invest in OE as a way to create a value chain in a given context (region, global network, municipality...). Bring OE to the learning organization. Helix models (triple, quadruple, quintuple...). Chitu Okoli and Ning Wang's list of 18 business models for OER. (Donations and grants, Online program of traditional institution, Community-based production, Advertising, Cooperative production consortium, Governmental or foundation sponsorship, Institutional subscriptions, Selling course experience, Content creation by classroom students, Content creation by MOOC students, Individual expert contributions, Selling courseware, Ancillary product, Syndication, Employee recruiting, Corporate training, Virtual charter school, OER curation). Business Models for Online Education and Open Educational Resources by Chitu Okoli, Ning Wang :: SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2577676</p>	Canada
<p>No. a business is by its aim not sustainable.</p>	CH

I don't think so. The only good business model is to make OER creation etc. part of the job description of academic staff. Of course, one also could imagine that open educational resources are financed by various important sponsors, but that is not a business model	CH
Open education should be supported by tax-payer money, possibly also by philanthropy. Access to open resources by private / commercial schools can be billed to them (as a way to co-finance the creation and sharing efforts and infrastructures)	CH
The business model that is sustainable are fully stated financed. Or the user has access to a small part of the service until he pays for the full experience. Or the company takes all the data about the user and make money with it.	CH
Do you know specific economic theories or models that could match with Open values and the commons' perspective?	
See Eleanor Ostrom's work on the commons. See Kate Raworth Doughnut Economics See Mark Carney Value(s): Building a Better World for All See Yochai Benkler The Wealth of Networks: How Social Production Transforms Markets and Freedom See Lewis Hyde The Gift: How the Creative Spirit Transforms the World See Eric Raymond The Cathedral & the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary See Paul Stacey, Sarah Pearson Made With Creative Commons	Canada
L'économie circulaire, oui. L'économie féministe également, même si je pense qu'elle va encore plus loin dans la critique du néolibéralisme, notamment par la déconstruction du patriarcat (ce que je n'ai jamais entendu dans l'Open education, mais je ne suis pas une spécialiste...) EN : The circular economy, yes. Feminist economics as well, although I think it goes even further in the critique of neoliberalism, notably through the deconstruction of patriarchy (which I've never heard in Open education, but I'm not a specialist...)	CH
Commons-based post-capitalism (e.g. Ianik Marcil), social innovation (e.g. Jonathan Durand Folco), social entrepreneurship, community-driven social innovation, FabCity... Comment: Aware of theories and/or models which would match OE's values, not all of them economic in the usual sense. Ianik Marcil's work does fit as does Jonathan Durand Folco's.	Canada
There are various reports documentting this for example by the P2P foundation	CH
The tragedy of the commons (Lloyd) and more modern derivates, some described https://en.wikipedia.org/wiki/Tragedy_of_the_commons I am not aware of any economic theory. However, managing the commons is a political and social question and there are many theories on how to manage common goods.	CH
Sharing economy and impact funds, the latter focusing currently mainly on green technologies, but being also interesting for education	CH
No. The only way to stay open is to have something very collaborative with a big community. But then it's very fragile and the quality is not always there and the accessibility, visibility is difficult. Like Linux.	CH
Legal level	
At the legal level, how is Open Education to be considered?	
Fundamentally open education is a break with the legal doctrine of intellectual property. Open education views knowledge not as property but as a communal public asset. Open enables the rapid dissemination and advancement of knowledge allowing everyone to build on the work of others in the past. In the digital age where copies can be easily made, distributed, and stored for virtually zero dollars knowledge could be abundant. However in the contemporary context laws have been passed that enshrine intellectual property making	Canada

<p>sharing illegal (though it is rampant on all social media platforms). These laws have created artificial scarcity in order to monetize knowledge. In order to deal with legal restrictions on sharing open licenses have evolved that essentially are hacks of copyright. These open licenses typically retain copyright for the creator but express a set of permissions for downstream users such as the right to use, revise, remix, retain and redistribute. Open licenses offer options and may restrict commercial use, require sharing back of any derivatives, or even prohibit modifications. Almost all open licenses require downstream users to give the original creator attribution. Changes to laws around intellectual property, particularly copyright, could obviate the need for open licenses. But so far vested corporate and market interests have outweighed the public good that comes from sharing. The wealth of a few are taking precedent over the well-being of all.</p>	
<p>Je ne connais pas bien les bases légales, mais il n'y a pas d'obligations il me semble, ni de lois, ce qui affaiblit le cadre (bien sûr, si on considère les droits humains et la convention des droits de l'enfants, l'open education devrait être le socle de tout système éducatif...) EN : I don't know the legal basis well, but there are no obligations it seems to me, nor laws, which weakens the framework (of course, if we consider human rights and the convention of the rights of the child, open education should be the base of any educational system...)</p>	CH
<p>New and more appropriate approaches to knowledge work and to “intellectual property”. Comment: Lot of potential for significant change, not enough mutual engagement between law experts and the rest of the OE world apart from the narrowest aspects of copyright. (We rarely discuss other WIPO issues like patents and trademarks. And there are many other legal issues which affect knowledge work, this Century.). Out of habit, Olivier Charbonneau and Michael Geist would likely be my references for these issues. At the same time, I might turn to Carys Craig whom I’ve discovered thanks to useful work by the Canadian Association of Research Libraries (Graeme Slaght and Mark Swartz).</p>	Canada
<p>It depends on which legal paradigm you choose. According to the Rodotà Commission and a ruling from the Italian Supreme Court, resources that fulfil fundamental needs must have a participatory governance, regardless of their ownership.</p>	CH
<p>As I said: any government should provide and encourage open contribution, at education level, but also any technical or organisational, or social knowledge. "internal" studies should be forbidden on public structures, and limited for private structures.</p>	CH
<p>Lancer un débat sociétal sur la pertinence des lois du droit d'auteur qui sont censé trouver un équilibre entre la défense des intérêts financiers des créateurs et l'intérêt de la société dans son ensemble, examiner les effets de la durée de cette protection qui ne cesse de s'allonger, tout cela dans un contexte où l'humanité entière est en situation d'urgence (changements climatiques, pandémie...) Mieux appliquer les lois déjà existantes qui signifient que les productions financées par la société ne sauraient lui être fermées EN : Launch a societal debate on the relevance of copyright laws, which are supposed to strike a balance between defending the financial interests of creators and the interests of society as a whole, and examine the effects of the duration of this protection, which is becoming longer and longer, all this in a context where the whole of humanity is in an emergency situation (climate change, pandemics, etc.). Better apply the laws that already exist, which mean that productions financed by society cannot be closed to it</p>	Morocco
<p>Open Education hat i.d.R mit den CC-Lizenzen ein starkes Tool an der Hand, um Rechtssicherheit im Cyberspace zu gewährleisten. Bei Software müssen andere Lizenzen zum Zug kommen EN : With the CC licences, Open Education generally has a strong tool at hand to ensure legal certainty in cyberspace. Other licences must be used for software</p>	CH

Which are the milestones with regard to legal issues and Open Education?	
<p>Milestones - follow the evolution of copyright law. Note that copyright law is largely a colonial imposition that negates many cultural norms and practices around sharing and stewarding a commons. In the last two decades funders especially governments who are providing public taxpayer dollars to support education have begun mandating that the creators of education openly license the education so that the public who paid for it can have access to what they paid for. But this is a band aid and not a full solution. On the research side of education there has been a long tradition of sharing, citations, and building your work off the works of those who came before you. Promotion and advancement are contingent on this kind of sharing culture. Open Access, open data, open science and other research practices have increasingly become the norm. On the teaching side of education this sharing culture has not evolved in a similar way. There are few to no promotion and advancement rewards for sharing and collaboration. There is no sharing culture similar to that which exists for research. This open education teaching and learning culture is being developed in real time as we speak. In Nov 2019 all 193 member states unanimously adopted the UNESCO OER Recommendation. This established high level government interest and support for adopting and implementing open education around the world. The Recommendation has five action areas - building capacity, policy, inclusive access, sustainability and international cooperation. Fulfilment of all five of these areas could entail legal matters. These efforts complement those related to fulfilment of the Sustainable Development Goals.</p>	Canada
<p>Inscrire l'OE dans la loi ? EN : Enshrine OE in law?</p>	CH
<p>In regions with Common Law regimes (most of the US and Canada, except for Quebec), landmark cases represent major milestones. For instance, the Supreme Court of Canada recently sided with York University in a case brought by Access Copyright. Advocates of both Fair Dealing (in Canada) and Fair Use (in the US) have their list of victories and hurdles, which have a large impact on the OER side of OE. https://www.arl.org/event/code-of-best-practices-in-fair-use-fair-dealing-for-oer-webinar-and-workshop/ Quebec's Civil Code regime does decrease reliance on jurisprudence. Indeed, the provincial government has a specific role in shaping Quebec's OE initiatives. It doesn't typically enact laws related to OE. Perhaps the most important milestones relate to the history of Creative Commons. One way to put it is that CC has given OE a legal foundation... and has contributed to an OER shift in OE. In the spirit of this Delphi study: I expect that landmark decisions related to other dimensions of OE will only come after the dust settles on OER regulations. Quite likely, institutional regulations promoting Open Pedagogy will come before OE Practices gain traction at a legal level. Global collaboration will occasionally follow legal frameworks and mostly work in parallel with legislation. Comment: Legal milestones are mostly important in formal contexts. Some of the most interesting initiatives in the OE movement have little to do with laws.</p>	Canada
<p>Teach critical legal theories to people in the legal field.</p>	CH
<p>La déclaration d'un pays, une université ouverte. EN : The declaration of a country, an open university.</p>	Morocco
What is already achieved and what is needed for Open Education to thrive legally speaking?	

Open education can thrive under the current legal context. However, ideally there would be: - changes to copyright law - policy that enshrines the public rights to knowledge and education - international agreements to pool, use and steward education materials - legal recognition of the rights associated with a commons and lots more	Canada
Je n'ai pas d'autres réponses que celle apportée à la question précédente. EN : I have no other answer than the one given to the previous question.	CH
Again, achievements mostly related to the legal status of OER. Lobbying efforts and court cases by publishers and copyright-based bodies have had a limited impact in thwarting OE. Whether it's through a Fair Dealing/Fair Use doctrine or through Creative Commons, rationales for educational use of material have reached maturity. We still need a legal framework for OE practices, including in the "simple" act of adopting OERs. Perhaps more interestingly, the global OE movement might overcome its "international" connections.	Canada
Not much is achieved as the extractive economic model still dominates most relations.	CH
Élargir le concept d'exception pédagogique au droit d'auteur, apporter un financement et une reconnaissance aux créateurs de ressources ouvertes, instaurer un système d'évaluation ouvert qui permet de mesurer la satisfaction des usagers EN : Expand the concept of educational exception to copyright, provide funding and recognition for creators of open resources, establish an open evaluation system that measures user satisfaction	Morocco
Förderung Kenntnisse der CC-Lizenzen, vor allem Beförderung der Lizenztypen CC-BY und CC By Sa. Viele verwenden zwar CC Lizenzen aber mit dem unglücklichen Zusatz NC oder ND, meist geschieht dies aus falschen Beweggründen EN: Promoting knowledge of CC licences, especially firing up the CC-BY and CC By Sa licence types. Many use CC licences but with the unfortunate addition of NC or ND, usually for the wrong reasons.	CH
Technological level	
At the technological level, which are the priorities for Open Education?	
Open education needs to use technologically open file formats to ensure materials can be revised and modified. Repositories that enable open education resources and practices to be stored, shared, and found need to be in place. Meta data that enables finding resources needs to be refined. There needs to be open infrastructure for open education community building and sharing of best practices. Learning technologies need to prioritize open education. Technologies that support authoring, using, and managing open education need development. All of these things exist but have not been optimized. There is no single search engine that will find all existing open educational resources. There is no global federated strategy for linking all the repositories. There are no technologies for tracking use and reuse (the equivalent of citations). There is no global/universal set of meta data standards. There are community building global platforms but they need further development. Authoring, using and managing, open education technologies are in their infancy. There are tensions between market providers of technology, whose motivation is profit and maximizing shareholder return, and the open education community whose motivation is collaboration, sharing and education for all. Sadly there are many examples of market players undermining and exploiting open education - to the detriment of all. Should open technological infrastructure be provided by the market or be public infrastructure?	Canada

<p>Il me semble que c'est le niveau le plus développé. La technique est toujours plus facilement maniable ou saisissable que les valeurs, mais il faut pourtant que les deux soient vraiment pensées ensemble.</p> <p>Commentaire : Je ne suis moi-même pas très au point à ce niveau. J'ai un grand travail à faire pour me mettre à niveau justement... J'ai toujours admiré Florence Piron qui s'est mise à utiliser les nouvelles technologies très tôt et qui grâce à elles a pu fédérer des étudiantes et des étudiants d'Afrique et d'Haïti notamment, leur donner la parole, accès à des savoirs inaccessibles etc.</p> <p>EN : It seems to me that this is the most developed level. The technique is always easier to handle or grasp than the values, but the two have to be really thought through together.</p> <p>Comment: I'm not very good at this myself. I have a lot of work to do to bring myself up to speed... I have always admired Florence Piron, who started using new technologies very early on and who, thanks to them, was able to bring together students from Africa and Haiti in particular, to give them a voice, access to inaccessible knowledge, etc.</p>	CH
<p>1. Interoperability 2. Learning Data 3. Linked Open Data 4. Open Platforms 5. Modularity 6. Learning Experience Design</p> <p>Comment: 1. The “first order of business” is to ensure proper operations of the tools we use across platforms, devices, etc. It goes from something as apparently simple as OER file formats (PDFs are troublesome in terms of both the 5R approach and accessibility) to something as deep as Data Sovereignty when it comes to learning experiences. 2. The link between OE and Learning Analytics will go through the full process of technological development: not just the tools themselves, their usage, and the knowledge behind them. We might eventually move from data about learners to data about learning processes, enabling a significant opening of learning pathways. 3. Berners-Lee’s Semantic Web dream has a strong connection to the broad OE movement, though few discuss it. Tools to support work on Linked Open Data (LOD) remain heavily specialized. As with several other parts of the OE movement, librarians can play a key role in LOD. 4. There’s a degree of technological solutionism in the OE movement, along with attempts to overcome it. Open Platforms provide an opportunity to manage both sides of this equation at the same time. Especially if we end up moving from “Learning Management Systems” (also known as “Course Management Systems”) to open-ended platforms which have less to do with (teachers) managing courses and more to do with learners using tools to build knowledge together. 5. Despite signs of “The Great Unbundling”, there are technological hurdles to making OE as modular as it can be. Some OE experts have given up hope on making OERs more granular. Yet “encapsulation” is an important aspect of computational thinking which can greatly enhance OE. In very practical terms, OE is ripe for its “Object-Oriented Programming” moment. 6. Design Thinking is impacting the technological world, especially in web and/or software development. LXD (Learning Experience Design) is more than an application of User-Centric Design to learning products. It’s an approach to learning itself as a series of experiences. Current tools to create those learning experiences remain relatively crude, partly because of misaligned priorities. The technological opportunity for OE in terms of LXD will involve partnerships between learners and others as developers and designers.</p>	Canada
<p>A mindset change from competitive, closed approaches to ways fostering high quality cooperation across peers</p>	CH
<p>Creating Data Cooperatives for sharing platform facilitation.</p>	CH
<p>A stable long-term infrastructure to share all sorts of educational resources that includes a recognition system</p>	CH
<p>Ease the creation of open educational resources (by dummies) and facilitate sharing, search and retrieval.</p>	CH

Getting strong and powerful tools. Finding people with broad specter of competences.	CH
At the minimum, what technological infrastructure is necessary for Open Education to live?	
Open education can happen offline without technology. So as a minimum no technology is required.	Canada
<p>Internet ?</p> <p>Comment: Je me pose beaucoup de questions sur le développement du numérique par rapport aux enjeux écologiques. Comment développer le numérique tout en réduisant le réchauffement climatique, n'est-ce pas antinomique ? Les enjeux écologiques face au numérique ne sont quasiment jamais abordés, est-ce lié aux enjeux économiques derrière ? (comme pour l'élevage intensif et la pêche industrielle ?)</p> <p>L'OE est philosophiquement liée aux ODD puisqu'il s'agit de respecter la dignité humaine et donc de permettre aux personnes de vivre dans un environnement sain, d'éviter les développements de populations et leurs conséquences sur le plan éducatif, de ne pas gaspiller les ressources, de les partager etc. Mais quant à savoir ce qui est nécessaire sur le plan technique, je dois m'informer.</p> <p>EN: Internet ?</p> <p>How: I have a lot of questions about digital development in relation to ecological issues. How can we develop digital technology while reducing global warming, isn't this antinomic? Ecological issues in relation to digital technology are almost never discussed, is this linked to the economic issues behind it (as with intensive livestock farming and industrial fishing?)</p> <p>OE is philosophically linked to the SDGs as it is about respecting human dignity and therefore enabling people to live in a healthy environment, avoiding population developments and their educational consequences, not wasting resources, sharing them etc. But as to what is technically necessary, I have to find out.</p>	CH
<p>A shared space, online or in the physical world. In my pragmatic approach as a participant in the field, the set of tools associated with developing communities of practice from human networks will play a key role in a sustainable OE movement. These tools vary a lot, from email lists and forums to tools for live collaboration. The challenge is more in appropriately leveraging these tools than in choosing the proper tools or, indeed, in allocating enough resources to them.</p> <p>Comment: We need to realize that "technology" covers an enormous range, from architecture to human language and from family structure to computers. The infrastructure already exists, and the OE movement is likely to remain sustainable. There are specific infrastructure needs in each context (say, OER hubs and portals). Yet the overall infrastructure runs through a map of the OE world.</p>	Canada
A technology that fosters cooperation by design.	CH
Data cooperative like Wiki, for reducing infobesity, and OPEN API to enable semantic web. lowtech: like reusing older PC, like we do at http://pully.intergen.ch no programmed obsolescence: like we defend at http://NoOPS.ch where we act to reuse existing smartphones, instead of destroying them, as we process today, all the same in the current false recycling excuse.	CH
<p>It is already here: Various Internet services and technology.</p> <p>That is fairly difficult questions, since IMHO it is unknown what we mean exactly by Open Education. Definitely serious interchange standards for educational resources, stable long-term implementations of formats and authoring software. Stable digital identities to store resources and access them. Open repositories and open learning platforms.</p>	CH

Open web standards and open digital libraries Digital libraries with federation services (cross referencing).	CH
Reliable platform. It means, a website, a database, and collaborative tools. Translating tools/people. Multilingual tools and resources. Strong online activity to connect with people everywhere. Comment: A lot of people and resources to launch and feed the platform. Not only the amount but where the money come from will determinate what we are able to do. We have to be careful about sponsors and select, prioritize state, association, school... Who has a real interest into open education. I think Wikipedia and YouTube are already great open education resources and platforms. People are sharing and learning a lot from those platforms. We could eater mimic them or use them as they are or making a mix. I think as well that, unauthorized and illegal platform on the internet who are sharing a lot of resources, articles, books... for free are very powerful in terms of open education. They give access to millions of people to great resources. We could try to make similar platforms and services but legally.	CH
Research	
With regard to scientific research on Open Education, which research avenues do you foresee as important? Could you please explain why?	
Peer groups of domain experts stewarding teaching and learning materials they all use. Collectively ensuring teaching and learning materials are up-to-date, localized to contexts, translated, and continually enhanced. Open education as the key means of lowering the total overall cost of education. Open education as maximizing global public good. Quality assurance. Measuring impact. Supporting open education decision making with evidence. Open education across the organization. What does a fully open educational institution look like? Open education for primary and secondary education - evolving practices and policies that enable teachers to help each other and learn from each other. The global benefits of open education (as opposed to local, regional, or national) Optimizing open education policy and funding.	Canada
Il me semblerait important de comprendre ce que signifie l'open education pour les personnes concernées, à tous les niveaux éducatifs et aussi sur le plan politique. J'aimerais par exemple comprendre la place (ou l'absence de place !) de l'OE dans le cursus universitaire de l'enseignement primaire (FEP) et secondaire (IUFE). EN : It would seem important to me to understand what open education means to those involved, at all educational levels and also politically. For example, I would like to understand the place (or lack thereof!) of OE in the university curriculum for primary (VET) and secondary (IUFE) education.	CH
Most pressing and urgent: research on all the barriers to learning, with deep work on their impact and causes. Eventually: holistic research on OE's impact in other aspects of life. In the meantime, research on OE's contributions to success in learning experiences will remain useful. Comment: I've encountered quite a few studies in (formal) education about the effectiveness of specific initiatives. Those will become increasingly useful as we link them to one another, identifying practices which work in one context or another. Deep down, though, we need thorough research on education's "shackles". For the past century or so, work in the Sociology of Education has made it obvious that	Canada

<p>a system of inequalities reproduces itself through formal education. Deep research on learning inequalities may mitigate the risk that OE will enable the same dynamics which affect learners worldwide.</p>	
<p>Are there approaches and theories that are particularly important to consider when conducting research in Open Education? If yes, could you please specify which and argument your choice?</p>	
<p>Les théories critiques qui prennent en compte l'interface individuel/collectif, autrement dit des théories non individualisantes ou psychologisantes. Des théories qui permettent de questionner le social, de mettre au jour les enjeux politiques et les structures sociales comme structures clivantes, productrices d'inégalités et de discrimination, de mettre en évidence les acteurs et actrices "invisibles" de l'OE, celles et ceux qui font de l'OE sans le savoir. Et par rapport à la question précédente, on pourrait prendre l'exemple du CO22, la réforme en cours du Cycle d'orientation à Genève. Quelle est la place de l'OE dans la réforme ?</p> <p>La place du genre, à partir des théories féministes.</p> <p>EN: Critical theories that take into account the individual/collective interface, in other words non-individualising or psychologising theories. Theories that make it possible to question the social, to bring to light the political stakes and social structures as divisive structures, producers of inequalities and discrimination, to highlight the "invisible" actors of the OE, those who do the OE without knowing it. And in relation to the previous question, we could take the example of CO22, the current reform of the Cycle d'orientation in Geneva.</p> <p>What is the place of the OE in the reform?</p> <p>The place of gender, based on feminist theories.</p>	<p>CH</p>
<p>Actor-Network Theory Connectivism Science and Technology Studies Ethnographic approaches Machine Learning.</p> <p>Comment: Bridges between Actor-Network Theory (ANT) and Connectivism will help the OE shift. STS (Science and Technology Studies, including ANT) will link OE research to other approaches to the way knowledge is built. Ethnographic field research has become increasingly important in research on formal education and is likely to have an impact on OE. The timing is right to reassess our use of "(human) intelligence theories" in the context of research on Artificial Intelligence.</p>	<p>Canada</p>
<p>How do you see the relationships between Open Education, Open Science (in the sense of UNESCO's 2020 recommendations of Openness to diverse knowledge, beyond access) and other Opens as represented for instance in Stacey's landscape?</p>	
<p>All the opens share the same underlying principles. They currently are largely siloed from one another but have great synergistic potential. There is a big opportunity associated with a government, consortium or even institution around deliberately embracing all these forms of open and integrating them as core to a mission. If/when this is done we will begin to see organizations and institutions offer complete open credentials, commit to open research, and optimize their operations to maximize the success of open.</p>	<p>Canada</p>
<p>Sur un plan philosophique (valeurs), tous les mouvements ou perspectives open sont fondamentalement liés, puisque l'orientation de base est celle d'une société plus équitable, la réduction des inégalités et des discriminations, l'accès de toutes et tous aux ressources (intellectuelles, naturelles etc.).</p> <p>EN : On a philosophical (values) level, all open movements or perspectives are fundamentally linked, since the basic orientation is that of a more equitable society, the reduction of inequalities and discriminations, access for all to resources (intellectual, natural etc.).</p>	<p>CH</p>

<p>OE's contribution to Open Science relates to learning as knowledge-building. The context of "superwicked problems" like climate change and social inequalities provide more than a backdrop for all the opens. It gives us a sense of urgency, which might lead to undesirable results unless we develop a strong understanding of our shared goals, beyond values.</p> <p>Comment: Years later, Stacey's map remains useful, for a variety of reasons. Hard to disagree with it as a representation of someone's perspective on many of the "opens", oriented towards incumbent institutions (for obvious reasons as Stacey was positioning the OEC). However, it's useful to stress the fact that most learners aren't students. As for ways the opens relate to one another, we run the risk of running into "Open Silos", as Lorna Campbell warned us. https://lornamcampbell.wordpress.com/2015/06/08/open-silos-open-data-and-oer/ Partly because of this risk, we need to address both overlap and distinctions among the opens. For instance, the well-known difference between ND ("Non-Derivatives") licenses in Open Access publications and OERs can lead us to compartmentalize our spheres of agency from our shared goals.</p>	Canada
<p>The visual makes me think of Steele RD. Open-Source Everything Manifesto. I strongly believe there is a high risk in using the term "open", as it can be used for very different political intentions. For example, open science can aim to improve the quality of cooperation among people whose first purpose is to end misery, while it can also be used by virtual entities to increase their ability to extract value from people's data in order to generate maximum profit. See amongst other the PhD thesis of Celya Gruson, briefly mentioned in « J'ai dissocié deux grandes visions du régime des savoirs : une vision que j'ai nommée techno-industrielle, qui reprend [...] les institutions déjà présentes qui essaient de gérer la transition vers le monde numérique [...]. L'autre vision que j'ai appelée processuelle [...] où la circulation des savoirs dans un réseau d'acteurs est le fondement même du système et où une gouvernance se met en place entre ces différents acteurs. » https://sciencesouvertes.hypotheses.org/229 For me, ensuring everyone can live freely and have a fulfilling life does not require a multiplication of theories and regulations, rather, it requires to adopt a new mindset, and simple rules of play to ensure that the quality of cooperation prevail on quantitative competition.</p>	CH
Additional comment	
<p>This was a massive survey. I almost didn't complete it due to the level of effort associated. I got fatigued by some of the questions as there was so much to say but a survey is not the place of the best way to say it. To thoroughly answer these questions would take large amounts of time and constitute something more like a book. I've provided short answers to most questions. Hope it helps. I'd appreciate getting a copy of my responses and look forward to seeing the aggregate summary.</p>	Canada
<p>Pour moi, toutes les questions ont été posées, sauf peut-être celle liées au genre. EN : For me, all the questions have been asked, except perhaps the one related to gender.</p>	CH
<p>A key element to achieve openness is to implement transparent governance. In my practice, I have not yet reached satisfactory results. Given the institutional context, I would recommend to allocate an important part of the resources on reflecting, scanning best practices and implementing an iterative, agile process in the project to continuously improve the quality of cooperation, for example by opening a space where participants are able to develop authentic relationship, confront themselves constructively, and address power plays and systemic corruption. The work of Madeleine Laugeri, discussed in the Acfas chapter is for me the best solution I experimented to develop this collegiality and to reach "popular consensus".</p>	CH

The main missing questions were about integrating meaningful practice with theoretical dimensions. My main answer to the questions revolves around the Open Innovation toolset, which includes Art of Hosting and Team Academy as well as Open Living Labs, Community-Driven Innovation, Participatory-Action Research, Public Engagement, “Guerrilla Urbanism” and so on.

Canada