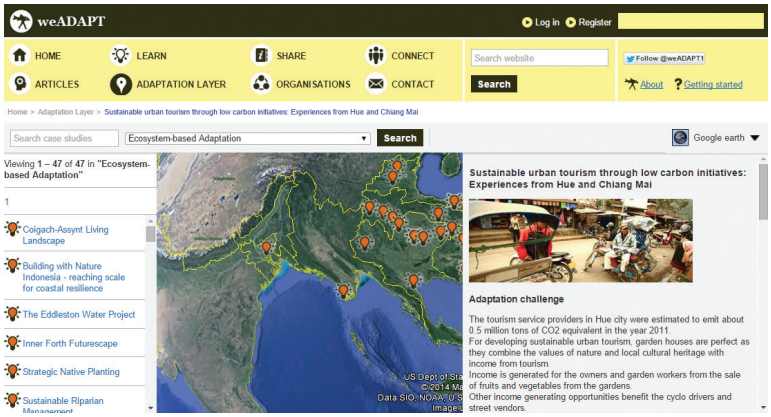
Learning across locales, organizations and networks: The weADAPT experience

In 2007, responding to a clear need for increased knowledge-sharing on climate change adaptation,[1] the Stockholm Environment Institute (SEI) Oxford Centre launched wikiADAPT. The goal was to enable the collaborative writing of articles on adaptation, and to create a space for researchers and practitioners working in the field to share experiences, useful tools and methods. From the outset, wikiADAPT – which evolved into weADAPT – was conceived as a partnership,[2] to build shared ownership across the adaptation community.



The Adaptation Layer in Google Earth shows case studies on the map – just click on a lightbulb icon to read.

In the seven years since, we and our Knowledge Partners have invested time, thought and effort into the platform's development, and we have seen it evolve and grow in a variety of ways – some intended and some unexpected. In the process, we have learned many valuable lessons about sharing knowledge on climate adaptation. This note aims to synthesize some of what we have learned, in the hope it will be useful to others in the field.

Early years

The wikiADAPT user base grew steadily, but contributions from beyond a core group working with SEI Oxford were limited. This was our first lesson – there is a lot of support for "sharing knowledge", but in practice there are many barriers to sharing one's work. People may be too busy with other priorities, lack the technical skills needed to add content, or simply want to keep control and ownership of knowledge (emphasized in responses to our 2008 user survey).

However, over the last 5–10 years, the internet has become much more participatory, and the culture of sharing (e.g. through social media) is far more established than it was in 2007: generally speaking, there is a better "enabling environment" for online knowledge-sharing today, both in terms of culture and technical ease.

Collaborative writing experiment: The Frontline Knowledge Explorer (FKx)

In 2009, in a concerted effort to increase contributions and develop momentum around sharing content, we set up an experiment in collaborative online writing with the Community-Based Adaptation Exchange (CBA-X) and the United Nations Development Programme (UNDP) Adaptation Learning Mechanism.

The idea for the Frontline Knowledge Explorer (FKx) was to develop a set of questions in wikiADAPT about links between adaptation and disaster risk reduction, and invite members of the three adaptation platforms, as well as experts in the wider community, to help build knowledge on the subject by responding to the questions where they felt they could. This was an attempt to provide structure to contributions, build momentum, provide technical support and make it very clear how contributions would be used, with authorship fully acknowledged.

Despite heavy publicity, and feedback from colleagues that this was a good idea, the level of participation in the FKx was disappointing. There was a spike in the number of visits to wikiADAPT in February 2009 following the launch of the FKx, but this was not reflected in users editing and answering questions. At the end of the month-long trial period, many questions remained unanswered, and contributions from outside the organizing institutions were minimal.

An important lesson from the FKx experiment was that the contributions we did receive were from people with whom we already had good working relationships, a high level of trust, and a common vision and principles in our approach to sharing knowledge, learning and the collaboration needed for climate adaptation research. These elements have shaped much of weADAPT's development since then.

What we do differently now

We learned several key lessons from those early experiences, including some about increasing participation, ownership and visibility. For example, one barrier to knowledge-sharing that became apparent early on was the perception that content might not be appropriately accredited when shared online or when used by others.

We addressed this and other barriers in a redesign in 2010. We have now made organizational logos central to content

[1] It may be hard to believe now, given their proliferation, but at the time we were one of only a handful adaptation portals; with other early examples being Eldis Community-Based Adaptation Exchange, and the UN Adaptation Learning Mechanism.

[2] Initial partners included the International Institute for Environment and Development (IIED), START, the Climate System Analysis Group (CSAG) at the University of Cape Town, Environment and Development in the Third World (ENDA-TM), the Sahara and Sahel Observatory (OSS) and the United Nations Institute for Training and Research (UNITAR).

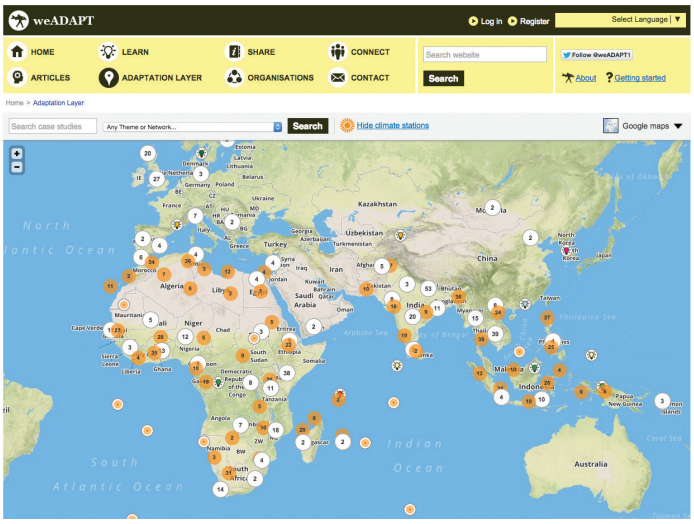
shared on weADAPT, making certain that accreditation is maintained as far as possible – e.g. even when case studies are downloaded from the Google Earth Adaptation Layer.

We have also created incentives to contribute, such as high visibility for all newly published content (on the site as well as through social media), meaning that a small community-based organization that shares its work receives the same exposure as an international NGO or research institute.

In addition, we have increased the visibility of authors who share content regularly, helping them gain recognition within the adaptation community and increasing opportunities for collaboration; we have seen many examples of new collaborations as a result. Other enhancements made as a result of user feedback are described below:

Adaptation layer to share case studies

Early in the development of weADAPT, users informed us of their desire to more quickly and engagingly communicate their work to different audiences, increasing the chance of influencing policy and other decision-making processes. This inspired us, through a project with Google.org, to create the Google Earth Adaptation Layer (see weadapt.org/adaptation-layer), a feature which allows the presentation of place-based case studies in a visually compelling way. This is now very easy to achieve (see next point) and enables the sharing of adaptation "stories" (see weadapt.org/knowledge-base/guidance/adaptation-stories) and lessons learned in a concise and spatially contextualized way.



The Adaptation Layer with climate station data from CIP.[3]

From Earth to Maps: The Google Earth interface has now been enhanced to include a Google Maps option (see weadapt.org/placemarks/maps). This has improved accessibility in low-bandwidth areas and removed the potential barrier of downloading and installing the Google Earth plugin in a user's browser.[4] The integration of climate data (both observed and projected, from the Climate Information Portal) also required that Google Maps be made available. See adaptation projects (white clusters) and climate stations (orange clusters) in image on right.

Editing interface

The redesign of the website also allowed us to address technical difficulties users faced in the past in using a "wiki" editing interface in wikiADAPT. The new way of adding content is very intuitive and user-friendly, allowing the user much more control over the look and feel.[5] Reducing any technical barriers to contributing content has been a central objective in the ongoing redesign and development of the weADAPT platform.

Semantic tagging

weADAPT has been leading the way in incorporating semantic tagging within its content, enabling meaningful links to be made, both by the system and by users, between different theme, network and project content. From a user perspective, this creates more linkages between content from different individuals and organizations that contain related concepts. This makes it easier to find relevant articles that you might not have sought out – i.e. content is brought to the user as much as the user actively "searches" for it.

An additional benefit is that content tagged in this way ranks high on external search engine results (e.g. Google), again increasing the visibility of content and contributors. This is key, since the large majority of the users of adaptation platforms still use Google as their primary way of looking for information (see Hammill et al. 2013). We have also collaborated with Reegle to incorporate their climate adaptation glossary[6] as additional semantic data tags, and are exploring new ways to take this forward.

Facilitating collaboration

Since authors and organizations who share content are given high visibility both on the site and through external search engine results, this encourages both online and offline collaboration. This can simply mean creating new contacts or peer-reviewing content, but can also involve co-authoring a new piece of content in real time through the custom editing interface, which allows collaborative writing. Collaborating offline could be preparing a project proposal with a new contact, co-hosting a workshop, or visiting a project site for peer-to-peer learning. The latter has taken place recently as a direct result of interactions through weADAPT by organizations that were otherwise unconnected.

Building on the experience that trust and long-standing relationships are critical in encouraging contributions and collaboration, we have structured weADAPT so that specific themes, networks and projects are managed by organizations recognized for their expertise in a certain area. For example, CIFOR manages the Forests and Climate Change theme (weadapt.org/forests). This provides ownership of a "space" on weADAPT by key Knowledge Partners, with the added responsibility of curating the material produced by the relevant network, theme or project, reviewing and editing content before publishing it on the site.

Such expert knowledge management improves overall quality, but it also requires commitment from those key partners, because there is a large time investment involved in communicating with authors before content is ready to publish.

3 The Climate Information Portal; see: http://cip.csag.uct.ac.za.

4 In organizations where new software can only be installed by administrators, this can be a barrier.

5 Content can be articles, geo-referenced case studies, videos, reports, tools, guidance material, project reports, working papers, journal articles, etc.

6 See: http://www.reegle.info/glossary.

For the weADAPT platform, this commitment by Knowledge Partners provides a distributed model of collaboration that makes managing large volumes of content in many specialist areas of expertise more realistic and sustainable, especially over the long term, as the weADAPT community grows.

We have also been very open to linking and sharing content with other websites and platforms, including the Center for International Forestry Research (CIFOR), the Asia Pacific Adaptation Network (APAN); AfricaAdapt, and the MEDIATION Adaptation Pathfinder.[7] We use our tagging system to link content specially tailored for each site. This sharing creates a multiplier effect which benefits users and organizations that participate on weADAPT, as it further increases the visibility of their work by distributing it through a wider set of networks, many of which they might not otherwise have access to.

New ways of identifying user needs

In 2011-2012 we ran two "user labs" in collaboration with some of our key Knowledge Partners: the Climate Systems Analysis Group (CSAG) at the University of Cape Town, Environmental Development Action in the Third World (ENDA-TM) and CIFOR.[8] In these labs, which took the format of face-to-face workshops over 3–4 days, we worked intensively with users – researchers and practitioners working on various aspects of adaptation around the world – to understand their use of weADAPT and the Climate Information Portal (CIP), their information needs, and areas for integration between the two platforms.

Feedback was systematically collated, analysed and then translated into new and improved functionality in each platform and in the way they interact. These face-to-face engagements were invaluable both in terms of collecting detailed user feedback to guide further development and in creating some new weADAPT "champions", who went on to explain and promote weADAPT to others in their own networks.

Key elements to consider

Many of the lessons described in this note are found elsewhere in the wide literature on knowledge management, particularly as it relates to development (see, e.g., Fisher 2011). This suggests that although there are certainly challenges that are unique, or have greater significance in adaptation, many of the issues are the same as those faced in other fields. This reinforces the need to draw on ideas and solutions from other disciplines, including those that are not immediately obvious, such as the work on networks and organizational sharing within the business community or the global health sector. Nevertheless, we would like to share some key lessons:

1) Content creation doesn't just happen.

The process involves much more than simply creating an intuitive space where sharing is possible. It requires time and effort to reach out to existing and potential new users, communicate with and give feedback to contributors, and manage content to keep it credible, relevant, up-to-date, easily accessible and connected to other new content.

2) There is no substitute for face-to-face user engagement.

No matter how well functionality works, or how obvious it may appear from the inside, users will find things which do not work as well for them, or could be improved. For example, in the hands-on user labs we discovered that our search results were not completely intuitive to users, and our new Google Translate button was not visible enough. This is not always due to technical functionality per se, but also because sometimes, the way in which people use websites is not as you would expect.

3) Relationships and networks matter.

Trust, recognition, mutual benefit and reciprocity are key in encouraging contributions from users. We have found that a networked approach, working with organizations that already have a presence and a well-developed network on certain issues, greatly increases the number of contributions from users. Equally, the most exciting developments come from collaborations built from long-standing relationships where trust has been built over many years. The importance of face-to-face interaction in order to build trust and relationships and sustain collaboration should not be underestimated.

4) Analytics are important, but measuring "impact" is hard.

Keeping track of web analytics (e.g. number of visits, duration of visits, pages with most views, etc.) is important. This sounds obvious, but some of our most viewed pages are not the ones we would expect, so it does help us to get a better understanding of what users are doing and why. It is much harder to measure "impact". What do users do with the information they have read or the tool they have downloaded? What are the complex processes by which information is interpreted and passed on? Is the message that users take away from an article the one you expect them to? (See Beynon et al. 2012). Evidence of new collaborations and stories of the way information has been used and to what end are to some extent anecdotal, but do start to build evidence of "impact".

5) Technology is important... but not without a purpose.

There is a tendency to get carried away with the latest technical developments. While some have clear benefits to users, technical improvements should always be made because they will improve the user experience in some way, not simply because they are possible and cutting-edge. Although the culture of using technology has changed in the last decade, there still remain socio-cultural (and technical) issues limiting the uptake of new technology and creating and sharing digital information as well as institutional barriers which also limit the added value of new and innovative technologies, e.g. if additional non-standard software is required to access certain functionality.

6) We need adaptation champions.

There is great value in having one or two committed users within organizations to act as "adaptation champions" who share information from their organization and can act as a "bridge", sharing weADAPT information with colleagues

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[7] See: http://www1.cifor.org/cobam/home.html; http://www.asiapacificadapt.net; http://www.africa-adapt.net; and http://mediation-project.eu/platform/home.html.

[8] The labs were conducted through funding from the Climate Change Capacity Development (C3D+), which is supported by the European Commission (EuropeAid/DCI-ENV/2008/149684/TPS) with supplementary funding from the Austrian Development Cooperation and the Swiss Government.

who may not be active users of the platform. Face-to-face interactions such as user labs, conferences, workshops, training sessions, and regular online communications are critical in fostering such champions.

7) A knowledge platform should support decision-making, not just provide information.
A key contribution that SEI makes to weADAPT content is in the form of tools and methods that link qualitative and quantitative information. This is in response to user demand and research needs and gaps, for which demand is then created through communication of the potential benefits. Examples of this are decision support tools such as the Climate Adaptation Options Explorer (ADx – http://weadapt.org/knowledge-base/adaptation-decision-making/adaptation-decision-explorer), pilot tools for knowledge elicitation (KnETs – http://weadapt.org/knowledge-base/adaptation-decision-making/knets), agent-based social simulation (http://weadapt.org/knowledge-base/adaptation-decision-making/agent-based-modelling) and the integration of climate and adaptation data through the Google Maps Adaptation Layer (http://weadapt.org/placemarks/maps).

Detailed guidelines and "user journeys" are also regularly developed to support users' learning processes, including detailed case studies, from climate and social vulnerability assessment to screening adaptation options.[9] Thus, directly supporting climate adaptation decision-making moves beyond basic information sharing and provision, towards building the capacity and processes required to enable decision-making to take place.

8) Financial sustainability is an ongoing challenge.
There is no easy way to fund the considerable time that has to go into developing and maintaining such a platform, particularly as we continue to expand and innovate as digital technology improves. Many similar initiatives receive project funding for a limited time to get started, but then quickly become outdated once that project is over, due to a lack of maintenance and management. This is problematic for users that become engaged early on and understandably erodes their trust and belief that such initiatives can have a long-term presence and add value to their work. As an alternative, we have developed a distributed model to facilitate shared ownership, credibility, sustainability and long-term impact. We continue to build weADAPT into our research and seek out institutional support to ensure longevity, innovation and continued growth to meet evolving user needs.

Concluding thoughts

The adaptation knowledge management field has changed significantly in the past six years, and will no doubt continue to do so. There are exciting technical developments beginning to mature, with Linked Open Data in particular having great potential to facilitate the sharing and reuse of information.

However, for knowledge-sharing to lead to better adaptation decisions and actions on the ground, there needs to be a clearer understanding of how information is interpreted and used, as well as the complex ways in which decision-making processes can be influenced. Tied to this, a key focus must be to develop messages appropriate for different types of audience as opposed to simple information supply taking into account potential information access, types of delivery and factors affecting receptivity. There is growing research in this area that could usefully be applied (see, e.g., Jost 2013).

Above all, building and retaining strong online and offline relationships with users remains crucial in developing a community willing to create and share knowledge for adaptation.

Further reading

Beynon, P., Gaarder, M., Chapoy, C. and Masset, E. (2012). Passing on the Hot Potato: Lessons from a Policy Brief Experiment. IDS Bulletin, 43(5). 68–75. DOI: 10.1111/j.1759-5436.2012.00365.x.

Fisher, C. (2011). Knowledge Brokering and Intermediary Concepts: Analysis of an e-discussion on the Knowledge Brokers' Forum. http://assets00.grou.ps/0F2E3C/wysiwyg_files/FilesModule/knowledgebrokersforum/20110721104502-ugrvcfpatmivjojwi/Knowledge_Brokering_and_Intermediary_concepts_discussion_Summary.pdf.

Hammill, A., Harvey, B. and Escheverria, D. (2013). Understanding Needs, Meeting Demands: A user-oriented analysis of online knowledge brokering platforms for climate change and development. International Institute for Sustainable Development, Winnipeg, Canada. http://www.iisd.org/pdf/2013/understanding_needs_platforms.pdf.

Jost C. (2013). Delivery models for climate information in East and West Africa. CCAFS Working Paper No. 41. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Copenhagen. http://www.ccafs.cgiar.org/publications/delivery-models-climate-information-east-and-west-africa.

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[9] For user journeys, see: https://weadapt.org/knowledge-base/guidance/pathways.

We have also developed step-by-step guidance for using climate information: http://weadapt.org/knowledge-base/using-climate-information/guide-to-using-climate-information. See an urban case study application: http://weadapt.org/knowledge-base/using-climate-information/using-climate-information-case-study. We also have a coastal case study: https://weadapt.org/knowledge-base/using-climate-information/tanzania-using-climate-information-case-study.

For the ADx user guide, see: http://weadapt.org/knowledge-base/adaptation-decision-making/adx-user-guide. For an ADx application in Gambia, see: https://weadapt.org/knowledge-base/adaptation-decision-making/adx-greater-banjul-area.