Virtual Exchange Typology

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Stevens Initiative

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Introduction

The Stevens Initiative aims to give every young person the knowledge, skills, and experiences they need to prosper in an increasingly interconnected world. To achieve this goal, the Initiative is working to build the field of virtual exchange, an emerging method that uses technology to connect young people around the world to learn and work together. Creating knowledge and sharing information about the field of virtual exchange is a strategic and central pillar of the Initiative's work. The Initiative serves as a thought leader in this developing arena by filling gaps in research, sharing resources and perspectives, recommending promising practices, and lowering barriers to enter the field.

Using more consistent language will help the virtual exchange field mature. The terms used to describe virtual exchange and its components vary widely, diminishing the field's cohesion and clarity and hampering widespread adoption. Establishing common terms and shared understanding of key concepts will help practitioners and scholars understand what types of exchanges exist, how they are created, and what is required for implementation. The Stevens Initiative shares this typology, including the glossary of terms, in an effort to improve mutual understanding among virtual exchange practitioners and enable further development of the field.

Virtual exchange is too complex to describe in a simple or rigid framework, so this document does not include all terms or concepts that might be of interest to individual educators or practitioners. For example, in the Framework Components section, "Key Participant Demographics" includes participants' ages, geographic location, and level of education but does not include other factors that might be of interest. The glossary contains several common terms but is by no means exhaustive. The terms below are defined from the Stevens Initiative's perspective and do not and cannot reflect a consensus from the virtual exchange community at large. The Initiative acknowledges these limitations and will strive to further refine this project in subsequent iterations through constructive discussions in the virtual exchange community.

GLOSSARY

This list includes common terms that are used in the field of virtual exchange to describe practice, pedagogy, learning objectives, and program outcomes. Some of the terms exist in other academic disciplines or educational programming and some are unique to the virtual exchange field. When possible, the Initiative adopted definitions from institutions, experts, or thought leaders and hyperlinked to the source of the definition.

1. **21st century learning:** An approach to learning that emphasizes the skills, knowledge, and expertise young people need to succeed in work, life, and citizenship in a globally and digitally interconnected world. These include life and career skills; learning and innovation skills; information, media, and technology skills (21st century learning skills are closely related to digital literacy); and mastery of key subjects and themes, particularly as they relate to interdisciplinary themes. Specific skills encompassed by the broad categories above are often referred to as key 21st century skills. 21st century learning involves certain approaches to standards and assessment, to curriculum and instruction, to professional development, and to learning environments. To learn more, see the resources developed by the Partnership for 21st Century Learning (http://www.battelleforkids.org/networks/p21/frameworks-resources).
2. **Activity:** A planned component of a virtual exchange program in which participants engage.
3. **Activity plan:** Written instructions, directions, and notes used by facilitators or organizers to structure a virtual exchange program. Sometimes referred to as a lesson plan. Sometimes used interchangeably with curriculum.
4. **Alumni:** Individuals who have meaningfully completed a virtual exchange program in a way consistent with parameters set by the organizers. A participant becomes an alumna or alumnus at the end of the program.
5. **Application:** A software program that is used to conduct one or more components of a virtual exchange program. (See **technology** and **platform**.)
6. **Assessment:** An analysis of the effect of a virtual exchange program on intended outcomes, such as participant gains in knowledge, skills, and attitudes. Distinct from, but related to, **evaluation**.
7. **Asynchronous:** Occurring at different times. Asynchronous virtual exchange activities are typically the exchange of written, video, or photo messages posted to a common website or forum. These can also be sent from one participant to another (or to a group) over a period of time without requiring that the other participants view or respond immediately. Asynchronous exchange involves the creating and sending of a message, the receiving and viewing of the message by other participants, and then a response or follow-up message from those who viewed or received the message. Just sending a message or just viewing a message without a back-and-forth exchange does not constitute virtual exchange. (See **synchronous**.)
8. **Collaborative Online International Learning (COIL):** A term closely associated with, and sometimes used interchangeably with, **virtual exchange**. As defined by the State University of New York: "a teaching and learning methodology which provides innovative cost-effective internationalization strategies. Such programs foster faculty and student interaction with peers abroad through co-taught multicultural online and blended learning environments emphasizing experiential student collaboration. In the COIL model, students from different countries enroll in shared courses with faculty members from each country co-teaching and managing coursework. The COIL model does not merely promote courses where students from different nations co-habit an online classroom. Rather, the model advocates for the creation of co-equal learning environments where instructors work together to generate a shared syllabus based on solid academic coursework emphasizing experiential and collaborative student learning. The classes may be fully online or may be offered in blended formats with traditional face-to-face sessions taking place at both schools, while collaborative student work takes place online." (Excerpted from the SUNY COIL website: http://coil.suny.edu/page/about-coil-0.)
9. **Contact hours:** The number of hours of synchronous communication, asynchronous communication, and other related activities for a typical participant in a virtual exchange over the course of completing a program. For example, a virtual exchange program could involve 6 hours of synchronous communication and 18 hours of asynchronous communication, for 24 total contact hours. (See **dosage**.)
10. **Content area:** As defined in the Glossary of Education Reform: "a defined domain of knowledge and skill in an academic program." (https://www.edglossary.org/content-area/) Virtual exchange programs often focus on one or more content areas, frequently referring to them as **subject** and **topic**.
11. **Curriculum:** As defined in the Glossary of Education Reform: "the lessons and academic content taught in a school or in a specific course or program... Curriculum can include learning objectives, units and lessons, the materials, assessments, and other components of the learning process." The curriculum of a virtual exchange can include a description of how participants will interact, learn, and work together. The term can be used in a variety of ways depending on the context, which can cause some confusion. Some virtual exchange practitioners use the terms "curriculum" and **activity plan** interchangeably. (https://www.edglossary.org/curriculum/)
12. **Digital literacy:** As described by the University of Southern California: "the ability to find, evaluate, share and create content using the internet." (https://rossieronline.usc.edu/digital-literacy-teacher-toolkit/) Related skills include: functional skills; creativity; critical thinking and evaluation; cultural and social understanding; collaboration; the ability to find and select information; effective communication; and internet safety (https://rossieronline.usc.edu/blog/digital-literacy-myths/). Digital literacy is closely related to the concept of **21st century learning** skills.

13. **Dosage:** The amount of time a typical participant is involved in synchronous communication, asynchronous communication, and other activities as part of a virtual exchange program. Dosage may also be referred to as **contact hours**. For example, a virtual exchange program could involve 6 hours of synchronous communication and 18 hours of asynchronous communication, for an overall dosage of 24 hours. This is related to but different from **duration**.
14. **Duration:** The length of time over which a typical participant is involved in the activities of a virtual exchange program. For example, programs typically occur over a duration of several weeks to a few months. This is related to, but different from, **dosage** and/or **contact hours**.
15. **eTandem:** A form of learning and virtual exchange in which two people who speak different languages communicate across distance through technology to learn and practice each other's language.
16. **eTwinning:** Closely related to the broader term **virtual exchange**. The European Union defines eTwinning as "a platform for staff (teachers, head teachers, librarians, etc.), working in a school in one of the European countries involved, to communicate, collaborate, develop projects, share" with their peers in the European community. (**https://www.etwinning.net/en/pub/index.htm**)
17. **Evaluation:** A systematic process of gathering and analyzing data to determine the merit, worth, value, or significance of an activity or program. (Adapted from the American Evaluation Association: **https://www.eval.org/p/bl/et/blogid=2&blogaid=4**) Evaluation can involve a variety of methods and approaches and aim for different levels of rigor, depending on the context. Distinct from, but related to, **assessment**.
18. **Facilitator:** A person who plays a present role in enabling constructive engagement among virtual exchange participants. Facilitators are sometimes, but not necessarily, educators. The role of facilitation puts greater emphasis on empowering participants to take an active role in shaping the experience and is distinct from teaching or lecturing.
19. **Global competence:** As defined by the Asia Society: "The idea of global competence articulates the knowledge and skills students need in the 21st century. Globally competent students have the knowledge and skills to:
    - **Investigate the World:** Globally competent students are aware, curious, and interested in learning about the world and how it works.
    - **Recognize Perspectives:** Globally competent students recognize that they have a particular perspective, and that others may or may not share it.
    - **Communicate Ideas:** Globally competent students can effectively communicate, verbally and non-verbally, with diverse audiences.
    - **Take Action:** Globally competent students have the skills and knowledge to not just learn about the world, but also to make a difference in the world." (**https://asiasociety.org/education/what-global-competence**)
    - Other organizations have developed frameworks related to global competence, such as the U.S. Department of Education (**https://sites.ed.gov/international/global-and-cultural-competency/**) and the Organization for Economic Cooperation and Development (**https://www.oecd.org/education/Global-competency-for-an-inclusive-world.pdf**).
20. **Global digital exchange:** A concept advanced by the organization Global Cities and closely associated with **virtual exchange**, global digital exchange "harnesses technology to educate children and young adults to be successful citizens in a globalized world. The unique feature of global digital exchange is that learning occurs through the direct online connection of students with their peers in other countries. This approach has the potential to address several of today's pressing education challenges, including xenophobia, unequal access to global education, digital literacy, including assessing the reliability of online information, and use of technology in the classroom." (Excerpted from Global Cities: **https://www.globalcities.org/analytic-program-model**.)
21. **Impact:** The degree to which observed outcomes can be attributed to or are a result of an intervention, in this case a virtual exchange program. When used by evaluators or researchers, this term denotes a high standard of evidence that an outcome is a result of a virtual exchange program, often by controlling for, or otherwise rigorously ruling out, other causes. (See **outcome** and **output**. Adapted from Stanford Social Innovation Review: **https://ssir.org/articles/entry/getting_results_outputs_outcomes_impact**.)
22. **MOOC:** An acronym for Massive Open Online Course. MOOCs are often offered by educational institutions to individuals around the world who can sign up for free or for a fee without needing to enroll in a larger course of study. Individuals sometimes receive a credential for completing a MOOC. A MOOC itself does not typically meet the definition of being a **virtual exchange**, though some virtual exchanges are designed to include MOOC components. (Adapted from MOOC.org: **https://www.mooc.org/about-moocs**.)
23. **Need:** The social problem to be addressed by a virtual exchange program. It is often effective to be specific about people and the issues they face, in order to clearly describe the need or problem and to lead toward practical efforts to address it. This is an important concept in social entrepreneurship and similar fields. (Adapted from Ashoka: **https://www.ashoka.org/media/23434/download**.)
24. **Outcome:** The observed effects of the outputs (activities or products) of a virtual exchange program. Examples include the knowledge, skills, and abilities participants gain while participating in a virtual exchange program. (See **output** and **impact**. Adapted from SSIR: **https://www.ashoka.org/media/23434/download**.)

25. **Output:** An activity or product of an activity of a virtual exchange program. Outputs are typically countable. Examples could include the number of participants, the individual projects produced through the course of a virtual exchange program, or the number of contact hours of synchronous communication among participants during a program. (See **outcome** and **impact**. Adapted from Stanford Social Innovation Review: https://ssir.org/articles/entry/getting_results_outputs_outcomes_impact.)
26. **Participation:** Meaningful involvement in a virtual exchange program, such that it is possible for an individual to achieve the intended outputs and outcomes and experience the intended impact of the program. Registering or enrolling in a program or being involved in a minority of the program's planned activities do not meet the Stevens Initiative's threshold for counting as participation.
27. **Partnership:** A collaborative relationship between individuals or organizations working together on one or more aspects of a virtual exchange program. Partnerships are sometimes formalized through contracts but can also be more informal. They may or may not involve a transfer of funds or other resources.
28. **People-to-people:** Refers to exchange programs that connect regular citizens and residents in different countries and/or communities, in contrast to programs that connect government officials. This can include exchanges, whether in-person or virtual, that have educational, cultural, and professional purposes.
29. **Platform:** A technology, or group of technologies, used to conduct one or more components of a virtual exchange program. (See **technology** and **application**.)
30. **Project-based learning:** As defined by the Buck Institute: "a teaching method in which students learn by actively engaging in real-world and personally meaningful projects." (https://www.pblworks.org/what-is-pbl)
31. **Social and Emotional Learning:** As defined by the Collaborative for Academic, Social, and Emotional Learning: "the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions." (https://casel.org/what-is-sel/)
32. **STEM:** An acronym for science, technology, engineering, and math, including computer science. The concept is sometimes expanded to STEAM to include art. A **curriculum** or program can be designed to lead to learning in one or more of these subjects or disciplines, often by applying concepts or showing relationships to real-world issues.
33. **Subject:** See **content area**.
34. **Sustained:** Occurring over a sufficient duration to allow participants to build trust and understanding through repeated interaction. Many virtual exchange programs involve activities over at least three or four weeks and often up to two or three months to allow sustained communication.
35. **Synchronous:** Occurring live or in real-time. Synchronous virtual exchange activities include videoconference, audioconference, or messaging between participants that happens back and forth repeatedly while participants are online at the same time. (See **Asynchronous**.)
36. **Technology:** The software, hardware, internet connection, and networks used during a virtual exchange program. (See **application** and **platform**.)
37. **Telecollaboration:** A concept closely associated with virtual exchange. Scholar Robert O'Dowd says "telecollaboration involves virtual intercultural interaction and collaboration projects between classes in geographically distant locations under the guidance of educators." (https://www.slideshare.net/dfmro/cgu-o-dowd)
38. **Topic:** See **content area**.
39. **Virtual exchange:** A method that uses **technology** to connect people for education and exchange. Further:
    - Virtual exchange programs typically serve **young people**. Many virtual exchange programs are international, connecting participants in different countries in order to help them gain **global competencies**, among other knowledge, skills, and abilities. Many practitioners feel **facilitation** by prepared, responsible adults – often but not always educators – is an important component of successful virtual exchange.
    - The Virtual Exchange Coalition website defines virtual exchange as "**technology**-enabled, **sustained**, **people-to-people** education programs." (http://virtualexchangecoalition.org/)
    - Virtual exchange is closely associated, or used interchangeably with, several other terms, including **COIL**, online intercultural exchange, **global digital exchange**, **eTandem**, **eTwinning**, and **telecollaboration**. Virtual exchange may be conducted in conjunction with other forms of education or exchange, such as **MOOCs** or online courses, but it is distinct from these methods.
40. **Young people:** See **youth**.
41. **Youth:** Sometimes used interchangeably with **young people**, youth often refers to those in the age range associated with primary, secondary, and post-secondary education, as well as young professionals. Virtual exchange programs use a range of definitions and meanings of youth, in part because young adulthood is considered in some societies and contexts to extend to age 30 or older. Some organizations use youth to refer only to people age 18 and older (and consider those under 18 to be children). Many virtual exchange programs focus on youth as their main intended participants and beneficiaries. Many, but by no means all, virtual exchange participants are students and participate through their educational institution.

Virtual Exchange Program Framework

The following twelve components form a framework for describing key aspects of a virtual exchange program. The Initiative has sought to identify the most essential information that gives a general picture of what a specific virtual exchange program is, how it works, and how it is similar to, and different from, other programs in the field. Each item includes:

- a component name,
- a brief description,
- the component's type or format (for example, numerical, categorical, or free text),
- answer options for categorical components,
- examples of the component from existing virtual exchange programs (when applicable) and
- key questions that may help clarify how to describe each component of a real-world program.

Many of these components are specific to a certain time frame. In this document, these components are limited to reflect data for the 2018-2019 academic year, unless otherwise indicated. Future iterations of this framework, or use of this framework by others to represent other virtual exchange programs, should explicitly state the time frame represented by that new data.

Framework Components

1. Program Name

- ***Description:*** **The name of the virtual exchange program that is used by the lead institution.** Programs might also be commonly known by other names among partners, participants, and the public.
- ***Component type:*** Text
- ***Examples:*** Connect Program, Empatico, The Experiment Digital
- ***Key questions:*** **What is this virtual exchange program called by those who lead the program?** Are there multiple versions of this program that are substantially different from each other? Are there other names by which the program is known or other names used by participants or institutional partners in the program?

2. Lead Institution or Partnership Type

- ***Description:*** **The type of institution that is the lead partner or administrator of a virtual exchange program.**
- ***Component type:*** Categorical
- ***Answer options:***
  i. NGO that operates in more than one country (e.g., IREX)
  ii. NGO that operates in one country (e.g., One World Now)
  iii. Higher education institution (e.g., DePaul University)
  iv. Primary or secondary education institution (e.g., District of Columbia Public Schools)

v. Informal organization, such as a community organization that is not incorporated (e.g., a student club or organization)

vi. There is no lead institution; a pair or consortium of partner institutions manages the program by working with various virtual exchange providers (e.g., Erasmus+ Virtual Exchange)

- ***Key questions:*** **Who is the lead partner or administrator of this program?** To which larger organization do they belong? Where do they sit in the organizational hierarchy, and what is their role in that larger organization?

3. Program Administration Type

- ***Description:*** **Virtual exchange programs can be structured in multiple ways, all of which are influenced by the lead institution type, partnerships, virtual exchange activities, and participant demographics.** However, five distinct administration types can be distinguished from others, with the understanding that some programs might blend two of these types.
- ***Component type:*** Categorical
- ***Answer options:***

i. A single virtual exchange program run between two sites (e.g., Johns Hopkins University Center for Bioengineering Innovation and Design – Designing Solutions for Humanitarian Crises: **https://www.stevensinitiative.org/project/johns-hopkins-university/**)

ii. A single virtual exchange program run mostly the same way across several sites (e.g., IREX – Global Solutions Sustainability Challenge: **https://www.stevensinitiative.org/project/irex-2/)**

iii. A virtual exchange program in which multiple sites conduct related, but varied, activities (e.g., Empatico: **https://empatico.org/how-it-works**)

iv. An open enrollment virtual exchange program where there is no single site hosting participants in person (e.g., World Learning – The Experiment Digital: **https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**)

v. A virtual exchange administrative cluster at one institution, prioritizing training and support for related, but varied, activities (e.g., SUNY COIL: **http://coil.suny.edu/**)

- ***Key questions:*** **How many sites host virtual exchange activities?** How many partners are included in the virtual exchange? Are the learning activities or curricula different or the same at different sites? What is the administrative role of the leading institution? Does the lead institution implement virtual exchange activities or provide support and training for partner institutions?

4. Learning Content or Topics

- ***Description:*** **The subject matter, learning content, or academic discipline that is the focus of the virtual exchange program.** Some virtual exchange programs focus on one subject and others focus on several subjects.
- ***Component type:*** Text

- ***Examples***
  i. World Learning – The Experiment Digital (**https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**): Civics, leadership
  ii. Soliya – Connect Program (**https://www.soliya.net/programs/connect-program**): Empathy, global competence
  iii. Johns Hopkins University Center for Bioengineering Innovation and Design – Designing Solutions for Humanitarian Crises (**https://www.stevensinitiative.org/project/johns-hopkins-university/**): Public health
  iv. William Davidson Institute – Business and Culture (**https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**): Entrepreneurship, international business culture
- ***Key questions:*** **What is the learning content of the program?** Is it aligned with a traditional academic discipline or another subject area? Are there multiple subjects being explored or a single area?

5. Virtual Exchange Activity Type

- ***Description:*** **A holistic or collective description of the activities and learning cycle undertaken by participants throughout the virtual exchange program.** To date, many virtual exchange programs fall into general categories of activity type, with some exceptions, variations, or blending.
- ***Component type:*** Categorical
- ***Answer options:***
  i. Paired courses with group project/s (e.g., William Davidson Institute – Business and Culture: **https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**)
  ii. Asynchronous learning and international communication modules (e.g., Global Nomads Group – Campfire: Collaborating Classrooms: **https://gng.org/collaborating-classrooms/**)
  iii. Hackathon (e.g., Johns Hopkins University Center for Bioengineering Innovation and Design – Designing Solutions for Humanitarian Crises: **https://www.stevensinitiative.org/project/johns-hopkins-university/**)
  iv. Videoconference dialogue, sometimes with associated project (e.g., Empatico: **https://why.empatico.org/**)
  v. Pitch competition, sometimes with an associated MOOC (e.g., National Democratic Institute – Civic Tech Leadership Program: **https://www.stevensinitiative.org/project/national-democratic-institute-ndi/**)
  vi. Collaborative project-based learning (e.g., World Learning – The Experiment Digital: **https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**)
  vii. One-on-one language learning practice (e.g., NaTakallam: **https://natakallam.com/**)
  viii. Other
- ***Key questions:*** **How is the program structured?** How do participants learn from, or with, their international counterparts? What are the learning objectives for the program? Is there a large deliverable expected from participants?

6. Program Duration

- ***Description:*** **The length of a single virtual exchange program cycle or cohort in weeks**. This period should be the amount of time for a typical participant experience. Note: Some programs are modular, and participants may complete those modules in any number of ways, rather than over a specified number of weeks. The Empatico virtual exchange, included as an example in the next section, is one such program.
- ***Component type:*** Numerical
- ***Example:***
  i. Johns Hopkins University Center for Bioengineering Innovation and Design – Designing Solutions for Humanitarian Crises (**https://www.stevensinitiative.org/project/johns-hopkins-university/**): 6 weeks
  ii. William Davidson Institute – Business and Culture (**https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**): 8 weeks
- ***Key questions:*** **How many weeks, from beginning to end, will a single participant be engaged in the virtual exchange program?**

7. Dosage/Amount of Activity by Type

- ***Description:*** **This component includes a delineated description of the different types of learning activities planned for participants, including the number of hours planned for each type of activity.** The activity types include: synchronous communication, asynchronous communication, and other related activities, such as local (no international communication) group activities and individual work time.
- ***Component type:*** Numerical
- ***Examples:***
  i. William Davidson Institute – Business and Culture (**https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**)
    1. Synchronous activities: 22 hours
    2. Asynchronous activities: 15 hours
    3. Local group activities: 18 hours
    4. Individual work time: 69 hours
- ***Key questions:*** According to the curriculum, how many hours of each of these types of activity will a typical participant have over the course of the program duration?

8. Total Number of Participants

- ***Description:*** **The number of young people who meaningfully completed the program during the indicated timeframe, in this case the 2018-2019 academic year.** Note: The Stevens Initiative establishes a definition of meaningful participation – some combination of proportion or number of program sessions attended and/or completion of program assignments or activities – with its grantees. In cases where a program uses this kind of standard, it should be used when calculating the total number of participants.
- ***Component type:*** Numerical

- ***Example:***
  i. World Learning – The Experiment Digital (**https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**): 544 participants
  ii. William Davidson Institute – Business and Culture (**https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**): 223 participants
- ***Key questions:*** How many young people meaningfully participated in the program or met the program's definition of meaningful participation during a specific time period?

9. Key Participant Demographics

- ***Description:*** **The specific demographic designations of participants in a virtual exchange program, including ages, geographic location, and current education level, if applicable and relevant.**
- ***Component type:*** Categorical and text
- ***Categories:***
  i. Ages
  ii. Geographic Locations
  iii. Current Education Level (This may not be applicable to programs that operate outside the formal education system.)
- ***Example:***
  i. World Learning – The Experiment Digital (**https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**)
    1. Ages: 14-19 years old
    2. Geographic Locations: Multiple U.S. states, Iraq, Algeria, Yemen
    3. Current Education Level: Secondary school
- ***Key questions:*** **For the participants of this virtual exchange, what is the range of ages?** At which educational level are these participants? Which geographical locations are represented?

10. Technology Used

- ***Description:*** **The software used for communication among participants over the course of a program cycle as a part of any program activity (synchronous, asynchronous, group, or individual).**
- ***Component type:*** Categorical and text
- ***Answer options:*** Select which types and list specific platforms
  i. Videoconference
  ii. Messaging Applications
  iii. Learning Management Systems (LMS)
  iv. Collaborative Authoring Platforms (e.g., Google Docs)
  v. Email
  vi. Message Boards (if separate from LMS)

vii. Registration and Scheduling/Matching Tool

viii. Online Game

ix. Virtual/Augmented Reality Applications

- ***Examples:***

  i. IREX – Global Solutions Sustainability Challenge (**https://www.stevensinitiative.org/project/irex-2/**)

     1. Videoconference: Skype
     2. Messaging Applications: WhatsApp
     3. Learning Management Systems: ObaWorld

  ii. World Learning – The Experiment Digital (**https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**)

     1. Videoconference: Zoom
     2. Messaging Applications: Slack, Facebook, Instagram
     3. Learning Management Systems: Slack
     4. Collaborative Authoring Platforms: Google Forms, Google Docs, Google Sheets

  iii. Soliya – Connect Program (**https://www.soliya.net/programs/connect-program**):

     1. Videoconference: Custom Platform, "The Exchange Portal"
     2. Messaging Applications: Custom Platform, "The Exchange Portal"
     3. Learning Management Systems: Custom Platform, "The Exchange Portal"
     4. Registration and Scheduling/Matching Tool: Custom Platform, "The Exchange Portal"

- ***Key questions:*** **What learning activities require technology?** What applications or platforms are integrated into learning activities? What platforms or applications do participants need to use to participate in the program? What platforms are used to manage participation or to deliver information or tasks to participants?

11. Cost Per Participant

- ***Description:*** **The total cost to conduct the virtual exchange program for a specific timeframe, usually a calendar or academic year, divided by the total number of young people who meaningfully participated in the virtual exchange program or met the program's definition of meaningful participation (if such a definition exists).** Note: The Stevens Initiative recognizes that calculating cost per participant, particularly trying to do so in a way that is consistent across organizations, can be quite challenging. For example, practitioners may grapple with whether, or how, to account for costs that were incurred a year or more prior to the cost analysis. Other practitioners may not know how to account for inputs that don't have an easily calculated monetary value, such as the time of employees whose salary is already covered by other funds or the use of institutional resources (such as technology) that were already on hand when the program started. The Initiative encourages practitioners to capture a clear record of how they calculate the components of total cost, and the definition or standard used for deciding who counts as a participant, to shed light on how the cost per participant figure was reached.

- ***Component type:*** Categorical
- ***Answer options:***
  i. Under $100
  ii. $100 to $349
  iii. $350 to $599
  iv. $600 to $849
  v. $850 and higher
- ***Examples:***
  i. World Learning – The Experiment Digital (**https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**) for academic year 2018-2019: $100 to $349 per participant
  ii. William Davidson Institute – Business and Culture (**https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**) for calendar year 2020: $600 to $849 per participant
- ***Key questions:*** **What is the total of all the costs (staff, participant support, facilitator training, technology licenses, content development, etc.) involved in running this program?** How many participants met the definition of meaningful participation? What is the timeframe for our data (calendar year, academic year, etc.)?

12. Credential/Academic Credit Outcome of Program Participation

- ***Description:*** **The formal or informal recognition of learning as a result of participation in the virtual exchange program.**
- ***Component type:*** Categorical
- ***Answer options:***
  i. Academic credit from an accredited education institution
    1. Participation in virtual exchange contributed to completion and earning credit in a credit-bearing course (e.g., IREX – Global Solutions Sustainability Challenge: **https://www.stevensinitiative.org/project/irex-2/**)
    2. Participation in virtual exchange was the overwhelming component of a credit-bearing course (e.g., William Davidson Institute – Business and Culture: **https://www.stevensinitiative.org/project/william-davidson-institute-at-the-university-of-michigan-wdi/**)
  ii. Certificate (e.g., World Learning – The Experiment Digital: **https://www.stevensinitiative.org/project/world-learning-the-experiment-digital/**)
  iii. Digital badge
  iv. Other
- ***Key questions:*** **What is the outcome of the program on the participants' formal academic record?** Is this program part of a credit-bearing course at an accredited education institution? Does participation in the program affect the participants' credits earned as a part of the larger course (if any exists)? Do participants receive something else to certify their successful completion of the course (certificate, badge, other recognition, etc.)?

Framework with examples of virtual exchange programs

Framework Key

Program Name	Lead Institution or Partnership Type	Program Administration Type	Learning Content or Topics	Virtual Exchange Activity Type	Program Duration
Dosage/Amount of Activity by Type	Total Number of Participants	Key Participant Demographics	Technology Used	Cost per Participant	Credential/Academic Credit Outcome of Program Participation

Soliya Connect Program

Connect Framework	
Lead Institution or Partnership Type Program	NGO that operates in more than one country
Program Administration Type	A single virtual exchange program run mostly the same way across several sites
Learning Content or Topics	Empathy, global competencies
Virtual Exchange Activity Type	Dialogue (sometimes with associated project)
Program Duration	4, 5, or 8 weeks* *Program comes in different modules ranging from 4 to 8 weeks using the same learning goals with varying intensity.
Dosage/Amount of Activity by Type	▪ Synchronous activities: 16 hours ▪ Asynchronous activities: 16 hours ▪ Local group activities: none ▪ Individual work time: 8 hours *for 8-week program; for other modules, ratios are similar.
Total Number of Participants	Approximately 4,000 participants
Key Participant Demographics	▪ Ages: Usually 18-24 ▪ Geographic Locations: Multiple U.S. states, multiple countries in MENA, Europe, South and Southeast Asia ▪ Current Education Level: Undergraduate
Technology Used	▪ Videoconference: Custom Platform, "The Exchange Portal" ▪ Messaging Applications: Custom Platform, "The Exchange Portal" ▪ Learning Management Systems: Custom Platform, "The Exchange Portal" ▪ Registration and Scheduling/Matching Tool: Custom Platform, "The Exchange Portal"
Cost per Participant	$100 to $349 per participant
Credential/Academic Credit Outcome of Program Participation	▪ Academic credit from an accredited education institution. Participation in virtual exchange contributed to completion and earning credit in a credit-bearing course. ▪ Certificate: Participants are eligible for a Soliya certificate. ▪ Digital Badge: Some participants are eligible for an Erasmus + Virtual Exchange badge.

Empatico Program

Empatico Framework	
Lead Institution or Partnership Type Program	NGO that operates in more than one country
Program Administration Type	A virtual exchange program in which multiple sites conduct related, but varied, activities
Learning Content or Topics	Social and Emotional Learning, global issues
Virtual Exchange Activity Type	Video conference dialogue, asynchronous learning, international communication modules
Program Duration	4 weeks* *Not necessarily consecutive or uniform for all users. On average, educators who use Empatico complete 4 activities a year, conducting 8 hours of virtual exchange total.
Dosage/Amount of Activity by Type	■ Synchronous activities: 1 hour ■ OR Asynchronous activities: 1 hour ■ Local group activities: 1-2 hours ■ Individual work time: none
Total Number of Participants	24,675
Key Participant Demographics	■ Ages: 6-11 ■ Geographic Locations: Multiple U.S. states, multiple countries ■ Current Education Level: Elementary School
Technology Used	■ ideoconference: Custom Empatico Platform ■ Messaging Applications: Custom Empatico Platform ■ Learning Management Systems: Custom Empatico Platform ■ Classroom Matching Algorithm: Custom Empatico Platform
Cost per Participant	$100 to $349 per participant
Credential/Academic Credit Outcome of Program Participation	■ After completing an exchange, educators receive a certificate of completion.

The William Davidson Institute at the University of Michigan's Business and Culture

Business and Culture Framework	
Lead Institution or Partnership Type Program	Higher education institution
Program Administration Type	A single virtual exchange program run mostly the same way across several sites
Learning Content or Topics	International business, cultural competency
Virtual Exchange Activity Type	Paired courses with group project/s
Program Duration	8 weeks
Dosage/Amount of Activity by Type	■ Synchronous activities: 22 hours ■ Asynchronous activities: 15 hours ■ Local group activities: 18 hours ■ Individual work time: 69 hours
Total Number of Participants	223* *Projected for Spring/Winter and Fall semesters for 2020
Key Participant Demographics	■ Ages: 18-22 ■ Geographic Locations: Michigan, USA; Egypt; Lebanon; Libya. ■ Current Education Level: Undergraduate
Technology Used	■ Videoconference: BlueJeans ■ Email: Multiple platforms ■ Message boards: Facebook (private group)
Cost per Participant	$600 to $849 per participant
Credential/Academic Credit Outcome of Program Participation	■ Academic credit from an accredited education institution: Participation in virtual exchange was the overwhelming component of a credit-bearing course.

The Experiment Digital

Experiment Digital Framework	
Lead Institution or Partnership Type Program	NGO that operates in more than one country
Program Administration Type	An open enrollment virtual exchange program where there is no single site hosting participants in person
Learning Content or Topics	Civic engagement, community service
Virtual Exchange Activity Type	Collaborative project-based learning
Program Duration	8 weeks
Dosage/Amount of Activity by Type	▪ Synchronous activities: 4 hours ▪ Asynchronous activities: 28 hours ▪ Local group activities: none ▪ Individual work time: none
Total Number of Participants	544
Key Participant Demographics	▪ Ages: 14-19 ▪ Geographic Locations: Multiple U.S. states, Iraq, Algeria, Yemen ▪ Current Education Level: Secondary School
Technology Used	▪ Videoconference: Zoom ▪ Messaging Applications: Slack, Instagram, Facebook ▪ Learning Management Systems: Slack, ▪ Collaborative Authoring Platforms: Google Forms, Google Docs, Google Sheets
Cost per Participant	$100 to $349 per participant
Credential/Academic Credit Outcome of Program Participation	▪ Certificate of completion.

Conclusion

The glossary and framework outlined above represent the Stevens Initiative's effort to alleviate the common challenge of confusion about what is meant when individuals or programs describe virtual exchange. This effort represents an important and necessary first step towards improving discourse around virtual exchange and making progress toward a mature field.

The Initiative plans to use the glossary and framework established here to develop a survey that will catalogue in a subsequent publication the present state of the virtual exchange field, taking care to represent the variety and number of programs. If you would like to have your virtual exchange as a part of that survey, please contact us using the information below. We also plan to update this glossary and welcome suggestions to improve our definitions of items listed above or additional entries to consider. We encourage wide use of this framework and glossary, so please share with educators, scholars and practitioners in your networks.

ENGAGE WITH US

Visit the Initiative's website, or follow the Initiative on Twitter or Facebook to learn about the different ways to get involved in virtual exchange.

www.stevensinitiative.org @StevensInit /StevensInitiative

The Stevens Initiative is an international effort to build global competence and career readiness skills for young people in the United States and the Middle East and North Africa by growing and enhancing the field of virtual exchange. It is a lasting tribute to Ambassador J. Christopher Stevens, a public servant who dedicated himself to building understanding between people from different countries. The Stevens Initiative is sponsored by the U.S. Department of State and administered by the Aspen Institute. It is also supported by the Bezos Family Foundation and the governments of Morocco and the United Arab Emirates.

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Stevens Initiative