MOUNTAINSAFETY.INFO – BRIDGING RIGID INTERNATIONAL REVIEW OF BEST PRACTICE WITH THE BENEFITS OF A COMMUNITY MANAGEMENT ORGANIZATION

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ABSTRACT: The constantly increasing level of complexity in research and development of mountain safety related content has led over the course of the last 30 years to specialization and a distinct separation between those who research and develop methods, systems and strategies – and those who teach and apply them. This has led to the urgent need for a Community Management Organization (CMO) based on the principle of the Word Intellectual Property Organization. MountainSafety.info (MS.i) acts as a combination of a CMO and a "Best Practice" consensus organization. Bridging the benefit of institutional protection for the author's Intellectual Property Rights (IPR) with the requirement for rigid review of best practice consensus brings the interests of authors and users of mountain safety information to a common denominator. As such, MS.i ensures sustainability, quality of the contents as well as future research and development by remunerating work and use of intellectual property. Costs for MS.i content are adapted to the GDP of each nation, thus the content is equally affordable for everyone.

MountainSafety.info develops and operates the international knowledgebase of best practices in mountain safety in the public interest. It includes accident prevention, rescue and all related aspects for sound risk management in activities, travel, and practices in mountainous terrain.

In 2016, the first formal workgroup meeting took place in Austria, including representatives of all relevant user groups such as the world of professional guiding, organized rescue, ski patrol, avalanche warning services, ski patrol, military mountaineering schools, snowmobiling and scientific institutes. The rapid growth of the project in terms of participating subject matter experts, nations, organizations, and the resulting need for additional translations has quickly shown the need for an online content development, content management and collaboration platform. As of today, the platform provides and efficient working environment in over 20 languages for 4 workgroups operating in 27 nations and 22 time zones on the topics of safety in glacier travel, mountain emergency medicine, avalanche prevention & risk management and avalanche rescue. "Train the Trainers" programs are an integral part of the MS.i sustainability strategy. By sharing not only the application know-how, but as well the pedagogical and didactical know-how, future trainers from all relevant user groups learn the most efficient ways to deliver indoor lessons and practical outdoor workshops and therefore are able to teach their own courses and independently organize and deliver further "train the trainers" programs.

The workgroup "Avalanche Prevention and Risk Management" covers a vast number of snow, avalanche, terrain, forecasting and operational risk management topics. Equal to the approach in every MS.i topic, the goal is to create a comprehensive collection of best practice consensus to cover the needs of all user groups and levels of proficiency from recreational to professional in 20+ languages. ISSW participants actively contribute to the snow science knowledge pool. MountainSafety.info has been created to be an efficient, open minded, international development platform which provides at the same time protection for your contributions – we kindly invite you to actively participate in this project.

KEYWORDS: Mountain Safety, CMO, Sustainability, Collaboration

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1. INTRODUCTION

MountainSafety.info is foremost a community project of mountain, snow and avalanche and medical professionals who have a vital interest in organizing the interaction between authors, developers, researches, instructors course

leaders as well as the different institutional players in this field in a more sustainable manner.

The mission statement of Mountain-Safety.info contains the following core elements:

MountainSafety.info develops and operates in the public interest an international knowledge-base containing best practice in mountain safety. This includes accident prevention, rescue and all related aspects, to safe activities, travel, and practices in mountainous terrain.

While promoting standardization between user groups and application cases, Mountain-Safety.info respects cultural diversity and does not seek to establish formal regulations in mountain safety. The content of the knowledge-base includes and cites existing knowhow while further developing techniques, methods and systems based on scientific evidence. The wide dissemination, efficient teaching and proper application of the content of the knowledgebase is supported by providing it in as many languages as possible and establishing international "train the trainer" programs.

MountainSafety.info acts as a combination of a Collective Management Organization (CMO) as outlined by the World Intellectual Property Organization (WIPO) and a "Best Practice" consensus organization. Bridging the benefit of institutional protection for the author's Intellectual Property Rights (IPR) with the requirement for rigid review and best practice consensus brings the interest of authors and users of mountain safety information to a common denominator.

MountainSafety.info ensures sustainability, quality of the contents as well as future research and development by remunerating work and use of intellectual property in an extent that is feasible for the overall mission of Mountain-Safety.info and adequate for its contributors.

As of October 31st, 2023 the database contains:

- 103 topics published in the domain of Avalanche Rescue and Avalanche First Aid

- 239 illustrations with text overlays -> 3585 translated Illustrations

- 869 text paragraphs and list elements ->13035 translated elements

The user Interface contains further 22596 text elements concerning the public and the workgroup-based user interface: As well the

workgroup user interface is available in almost 20 languages, thus there are no linguistic barriers for subject matter experts when collaborating in the work groups.

The workgroup "avalanche rescue", which service as a prototype workgroup and prototype topic during the development of the entire platform, is to 98% done with the topic and will soon change from the status "in development" to "keep existing content up-to-date, develop new content when necessary and possible".

Several new workgroups have started in the last year, in particular the workgroup "Avalanche Prevention and Risk Management", "Glacier Safety" and "Emergency Mountain Medicine". The goal is to start as soon as possible with summer related topics, Mountain-Safety.info has no preference for winter related topics.

Sustainable, innovative international collaboration is a major goal of MountainSafety.info and it is based on:

1. Economic sustainability

Costs for MountainSafety.info content is adapted to the GDP of each nation; thus, the content is equally affordable for everyone.

2. Practicability of implementing

"International Best Practice" MountainSafety.info provides content in 20+ languages, an essential requirement for successful, worldwide implementation.

3. Worldwide "Train the Trainers" Programs

Sharing of the application and the pedagogical and didactical know-how. Trainers learn the most efficient ways to deliver the indoor lessons and practical outdoor workshops. This includes how to independently organize and efficiently deliver further "train the trainers" programs.

Teaching takes place in the first language of the participants.

Courses are taught by instructors who were socialized in the same system like the participants, they share the same teaching and learning culture, they have all the local knowhow, know the mountain ranges and course regions best.

Instructors and participants work and live in the same socio-economic system, thus courses are affordable for the participants and the course income of the instructor is adapted to the nation's cost of living. International travel of instructors is limited to the initial train the trainers programs.

The MountainSafety.info Workgroup Members are the backbone of the organization and their participation is a mutual success model.

Who are the MountainSafety.info workgroup members?

Particularly motivated, open-minded and talented subject matter experts out of the "train the trainers" programs, who are consensus-orientated and share the humanistic, ethical and professional values of MountainSafety.info can become MS.i Workgroup Members. They play a vital role as bilateral life-link of know-how and innovation sharing between MountainSafety.info, their home nation and their user group. Thanks to their in-depth practical and theoretical understanding of applying and teaching the MountainSafety.info content, they are in addition able to provide concise translations of MountainSafety.info content in their first language.

As one part of the return for their efforts for MountainSafety.info, they grow with the success of the project and gain expertise and knowledge, which not only helps them to represent MountainSafety.info, but they become the most competent and most respected subject matter experts of their nation and user groups. As a grassroot project, Mountain-Safety.info is about empowering its own people by knowledge, genuine passion and international collaboration.

Content Development

During the development of new content and the revision of existing content, the representation of as many user groups, user levels and nations as possible is very important in order to achieve widely accepted best practice consensus. However, content development is not

based on expert option of delegates like in many national and international alpine organizations, such as ICAR, EAWS and many national Alpine Clubs. It is based on common development projects in which quantitative evidence is built up in field testing, laboratory testing and by analyzing statistical data. Common, evidence-based development projects have proven to be the key for true consensus and an efficient implementation of the methods, systems, techniques and strategies, worldwide.

Workgroup Avalanche Prevention and Risk Management - Project Phase 1 - Development of a Worldwide "Best Practice" Toolbox

The first step is to build up the content of the "Best Practice Consensus" database, following the concept applied in avalanche rescue and avalanche medicine. It will be particularly important to include from the very beginning on all relevant user groups and countries to ensure wide acceptance and support. An in-depth common understanding within the workgroup is often easiest to reach in workgroup meetings which treat the affected topics from a practical and theoretical perspective and by running common "train the trainers" programs.

Topics:

- Snowpack and stability evaluation

- Hazard evaluation

- Risk management

- Terrain skills

- Interaction model between forecasting services and the different user groups

- Application of an avalanche forecast in the terrain, forecast verification and potential adaptation to local conditions

- Avalanche forecasting