

"Coming together is the beginning; keeping together is progress: working together is success"

Henry Ford

## Universities of the future will be interdisciplinary

Do you find that departmental structures are making it harder for research and education to evolve and ideas to flow freely across disciplinary borders? Does ITU's tri-departmental structure encourage division rather than seamless collaboration? Whether collaborations are challenged by structure, people or both, we must make an extra effort to show our students how to manage collaborations across disciplines to expand their knowledge horizons.

Most ITU members acknowledge interdisciplinary collaborations have become an increasingly important part of science and business. They are no longer a "nice-to-have"; but "need-to-have" to find solutions to pressing, global-scale societal challenges being it the 17 sustainability goals or responsible digitalization of societies and organizations. Also, organizational challenges of gaining and sustaining competitive advantage often appear in a digital business ecosystem and can therefore not be resolved by one person or profession, or organization. By enabling the synergistic combination of the core disciplines of ITU and their different methods and data we can achieve novel insight and thereby generate novel solutions to complex problems. As Peter Lund Madsen explained at the online Friday bar event, "evolution is cultural as it now happens in collaboration with other human beings."

## CROSSDIT calls for cross-departmental collaboration

Initiating and successfully maintaining interdisciplinary collaborations can be challenging but highly rewarding provided that it is seen as a meaningful learning process. But like any other learning project, this must be facilitated in a manner so that all the participants can appreciate the debates and see the value of interdisciplinary explorations and feel that their time is invested well. The past course evaluations and talks with faculty indicate that this has not been the case.

Past experiences at ITU partly explains the lack of full support. Rather than clinging to the past we should look into the future of universities, which I believe will have be interdisciplinary to stay relevant. Let us regard CROSSDIT as an opportunity to role model and show our students the ITU way of uniting the corners of the interdisciplinary triangle. Let us use CROSSDIT as a case in search of novel ways of bridging the structural silos and heal the corporate wounds.

First step is to build legitimacy for the course through defining a common "why" shared by the department heads and that makes sense to the heads of Study Programme and teaching team. The first revised version of the course description defines interdisciplinary collaboration as the means - not the end - to realize higher purpose goals as mentioned above. Moreover, we infused the course with an entrepreneurial spirit to boost research-based learning and release innovate potentials of a spin-off outcome. This process was facilitated by the Education group and the Dean.

*Second step* of defining the "how" involves course responsible, coordinators, and faculty. Here we use the evaluation as guideposts for better practice:

- 1) Ensure that the relevance of the course is clearly communicated from the beginning to everyone. The course responsible collaborate with the Heads of Study program in order to translate the meaning into their local contexts,
- 2) Keep communication online as well as onsite short, simple, and respectful. Use few, relevant channels and platforms,
- 3) a nimble organization and good planning of the course activities that integrate everyone's skills and backgrounds are vital for a smooth process,
- 4) Solving real-life problems that can have a direct and measurable effect on the students is proposed by letting ITU be the common empirical platform to increase knowledge-sharing, dedication, and ownership of students and faculty. A suggested context was "how to design, build, and use digital technology to increase student voice, engagement, and wellbeing. Different IT themes, such as data ethics, security, UX, etc. can be raised and tested in collaboration with industry partners, who work with such platforms. They can guest speak, supervise teams, and assess the outcome. The case idea is supported by the Pro-rector and Dean of Education as it taps into important strategic goals of ITU. But it must also be supported by the teaching team to succeed.
- 5) Teaching must be empowering and engaging rather than lecturing and here the TAs play a vital role in supervising and aligning course workload expectations (7.5 ECTS).

Third step will be to define "who". It is necessary with a teaching team who recognizes that radical improvements are needed for a successful CROSSDIT experience for students and to ensure full back-up from ITU peers. The teaching team should be willing to drive and orchestrate an entrepreneurial process and faculty specialists should be available for "translating" the case into the specific knowledge domains. Thus, the team needs support from the remaining members of faculty to succeed as we approach this as collaboration, not allocation or division of tasks. "Where" and "when" remains unchanged for now.

## Stepping-stones for better cross-collaborations at ITU

- Prepare for a deluge of new ideas and approaches and keep your mind open
- Different fields have different languages and mental models, which cause ambiguity, e.g., the word "model" carries different meanings in a mathematical, statistical, experimental, observational, theoretical, computational, analytical, verbal, graphical, structural, contexts. Almost every field will have its own interpretation of "model" and the semantics may differ significantly. Be aware of different assumptions.
- Define your common ground and vocabulary to establish a common parlance between you and your peers and allow you to build from there.
- Approach other faculty members as complementary knowledge sources that bring the different pieces to the same puzzle. Reward the efforts!
- Different individuals and fields move at different speeds. It takes patience to align expectations to achieve mutual gains.

Stay curious, collaborative, and critically optimistic! See you soon at our next meeting where we will discuss these aspects.

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