Final Project

ISD Educational Change Model

Submitted by

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Submitted to

Dr. Edmonds

> "We can produce many examples of how educational practice could look different, but we can produce few, if any, examples of large numbers of teachers engaging in these practices in large scale institutions designed to deliver education to most children."
> Elmore

Introduction

Improving education on a large scale is not an easy task to do. Not only does it require a lot of resources and management, but it also brings an important piece of motivation, the shortfall of which results in a failure of the improvement at all. An obstacle to successful educational renovation is, ironically, the renovation itself. More precisely, the uncertainty the innovation brings. Rogers (2003, p.12) refers to innovation as "an idea, practice, or project that is perceived as new by an individual or other unit of *adoption*", and *adoption* means something that needs to be adopted. Does it mean it can be rejected?

To manage educational change we always need to contemplate the possibility of rejection and organize the adoption process in such a way that everyone would believe that the idea being implemented is extremely useful for them. Kotter (2014) introduces the piece of "creating the sense of urgency" following this principle. However, the thought that everyone would think this way is the main reason why educational (and not only educational) innovations fail. Management tries to persuade their employees to accept the reforms. If it does not work, then - forces them, which creates even more rejection of innovation. And brings us back to the main problem of educational innovation- the state of innovation itself.

Going back and forth in this vicious cycle of innovation process resulted in my reviewing already existing Change-management models. Even though they could be used in managing educational change in particular, at the same time, there are some special characteristics that are missing in other organizations. Having in mind these considerations, I developed a Spinning model presented in this paper.

Context

On March 1st, 2022 European Parliament recommended giving Ukraine EU candidate status, making Ukraine a step away from becoming a part of the EU (CNN, 2022).
Looking further, when Ukraine officially becomes an EU country, it will also need to meet the EU Standards of Higher Education. Based on the renewed EU agenda, one of the standards traditionally for the EU is "support international mobility of students, staff, and researchers" (European Commision, 2017), which requires English proficiency and overall academic readiness of students to study abroad.

According to the English Proficiency Index Survey conducted in 2020 by a private Swiss Education First company, Ukraine ranks 40th in the population's English proficiency out of 112 countries that participated in the annual survey. Ukraine lags behind all the EU countries in that ranking. Inheriting the USSR's outdated educational approach, Ukrainian Higher Education requires nationwide innovation in terms of greater language learning regardless of the academic program or university.

Language learning in higher education is just the tip of the iceberg regarding the USSR's request for isolated lecture-based education left for Ukraine and other post-USSR countries. Unlike Kazakstan, Ukraine has not been focused enough on reforms in the educational sector in order to expand its international relations with other universities. Students, who go for an exchange abroad, complain about the huge difference between educational approaches, which creates additional, not language-related difficulties for them. Following the EU Standards of Higher Education, there is a need for Language-learning renovation and other additional preparation for students to study internationally.

According to Ward, Bochner, and Furham (2001), there should be a number of activities to prepare students culturally, academically (including improving their language proficiency), and psychologically - which partially depends on the familiarity with the culture of exchange. The basis for this performance problem can be presented as a prep course including the sections presented above, or additional courses of cultural diversity, integration of Content and language integrated learning (CLIL) into studies, and academic writing courses, respectively. Universities and government policy, in general, should make the final decision on how these competencies are going to be introduced, but in order to reform education comprehensively and successfully, the educational change model is required.

Project's goal: To develop an educational change model for guiding a university administration toward changes to meet the international mobility standard of EU education.

Model Purpose

The Spinning Model presented can serve the function of a step-by-step guide for higher education innovators to lead the process of changes in education towards internationalization and reforming school curriculum. Innovations in education can be challenging due to the number of laggers, and this model should help to effectively implement ideas and changes following the educational agenda and world trends.

The rationale for the model

The goal of the model is to innovate education fundamentally, including the way of thinking of educational agents.

Higher education is a change-resistant space, and various techniques need to be involved in order to budge it. The Spinning model's purpose considers the compressibility and multidimensionality of educational change and guide the innovation process starting from the project generation towards the institution of a change. Combining the ideas of Rogers and Kotter's change models, Gentry model, following the complexity of each step as in the Niven cascade model, Milky-Way can provide an answer to a question:" I want to innovate education. What should I start with?"

The benefit of this model, compared to Rogers, is its degree of detail: it contains six stages with additional substeps on each stage. In addition, it involves not only the innovation piece but also the instructional one. Considering possible imperfections of reformation, the model addresses three main dimensions of any program:

1. Possible use of new or revised materials;
2. The possible use of teaching approaches
3. The possible alteration of beliefs (Fullan, 2016).

Including all these perspectives creates a basis for long-term, persistent results with fundamental changes in the way of thinking.

Intended Audiences

The model's primary focus is devoted to the faculty and staff accepting novelty, taking additional training, and implementing the changes during their studies. Moreover, in order for faculty and staff to adopt a new approach, the university administration should also take additional actions. Therefore, the first target for the Instructional Design Team would be to work with the deans and persuade them by familiarizing them with the possible positive changes in case the changes get implemented. More details on working with all stakeholders are presented in the Communication & Diffusion Plan.

Communications & Diffusion Plan

Stakeholder Group	**Description of the role**	**Performance Objectives**	**Adopter Category**	**Possibilities (P) and Barriers (B) to Adoption**	**Engagement Strategy**
Instructional Design Lead (Project Management)	Guide the Instructional Designers and Subject Matter Experts, work with University Administration to remain their positive attitude towards changes, help with faculty and staff when needed.	● Provide visible leadership ● Provide administrative assistance on key activities	● Innovator ● Bridge	P: Instructional Design Skills for implementation of innovations B: Disagreements with the University Executives/Staff	-
Instructional/Training Designers & Developers	Work with all of the key personnel under the direction of Instructional Design Lead, help Faculty and Staff, create a friendly learning atmosphere and explain	● Provide expert consultations ● Design/develop/ implement diffusion strategy ● Influence faculty and department	● Innovators	P: Instructional Design Skills for implementation of innovations B: Lack of experience for particular setting, difficulties in adoption	Approach to their desire to do creative work; assist in case of difficulties; not to overload

	the need for changes.	administration towards adoption			
University administration: University Dean, Dean of the Faculty, Department Chair	Responsible for achieving the final goal - innovating the university. They work with the instructional designers' team and follow their direction towards the changes.	• Provide visible leadership • Provide financial support • Provide administrative assistance on key activities • Influence Faculty and staff towards adoption	• Early Adopters • Gatekeepers • Opinion Leaders	P: As administration, have influence on their employees; with no-pressure approach can promote changes B: Can be opinionated and persist or reject the idea of change	Show respect and that their opinion matters; involve in administration meetings,describe successful cases and possible perspectives if adoption gets implemented; provide regular updates via monthly reports
Subject Matter Experts	Assist the Instructional Designers in the assessment of curriculum and content, create the list of recommendations to improve the instructions and their delivery	• Provide expert consultations • Influence Faculty and Staff towards adoption • Assist Instructional Design Team on Design/Development Stages	• Opinion Leaders • Bridges	P: Share vision of need for change, full of ideas and can help to energize the staff towards changes B: Motivation can decrease in case of persistence	Promote networking with faculty and staff, highlight common vision; invite to provide input

Faculty and staff	Submit to the administration and follow their directions, but some of them may be biased against reforms and need additional persuasion.	• Participate in training • Be Involved in a content development team (optionally)	• Innovators • Opinion Leaders • Gatekeepers • Bridges • Early/Late Majority • Laggards	P: Can be great team workers and have a lot of horizontal networking B: Some of them can appear stubborn in their desire to work the same way, may need additional help; limited time	Raise awareness of innovation of various meetings and events, create a sense of urgency, appeal to their desire for professional improvement; generate interest to the idea; conduct a meeting and describe successful cases and perspectives if adoption is implemented; promote networking with international colleagues (EU-countries), invite them to try the pilot test with no commitment

Spinning model overview

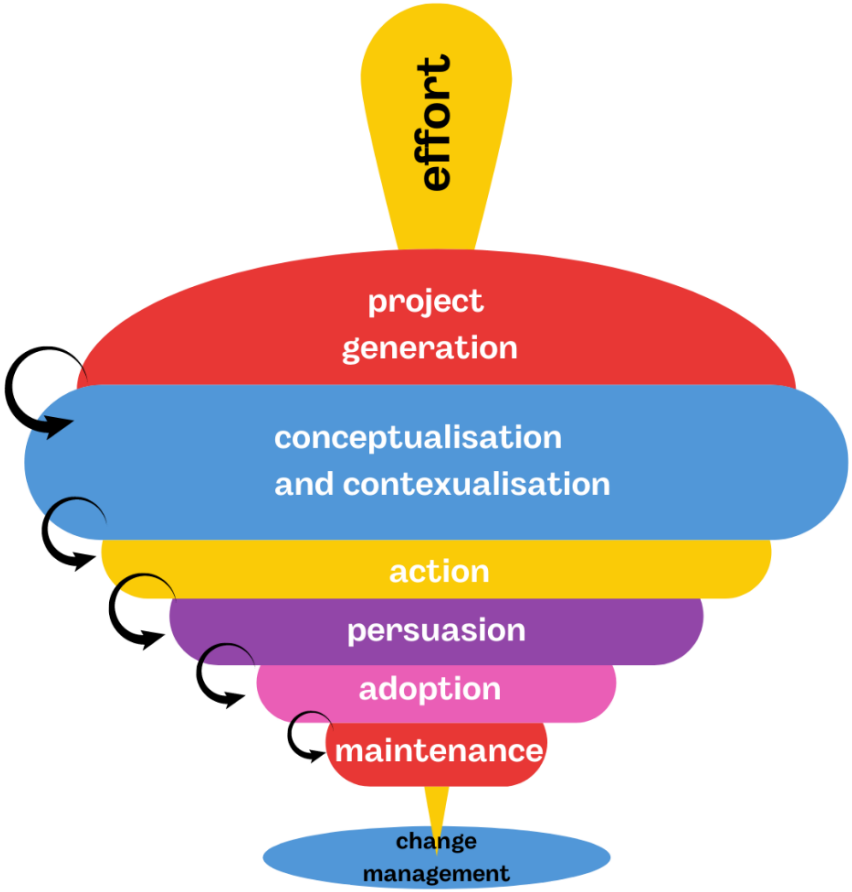

Figure 1. Spinning model outside

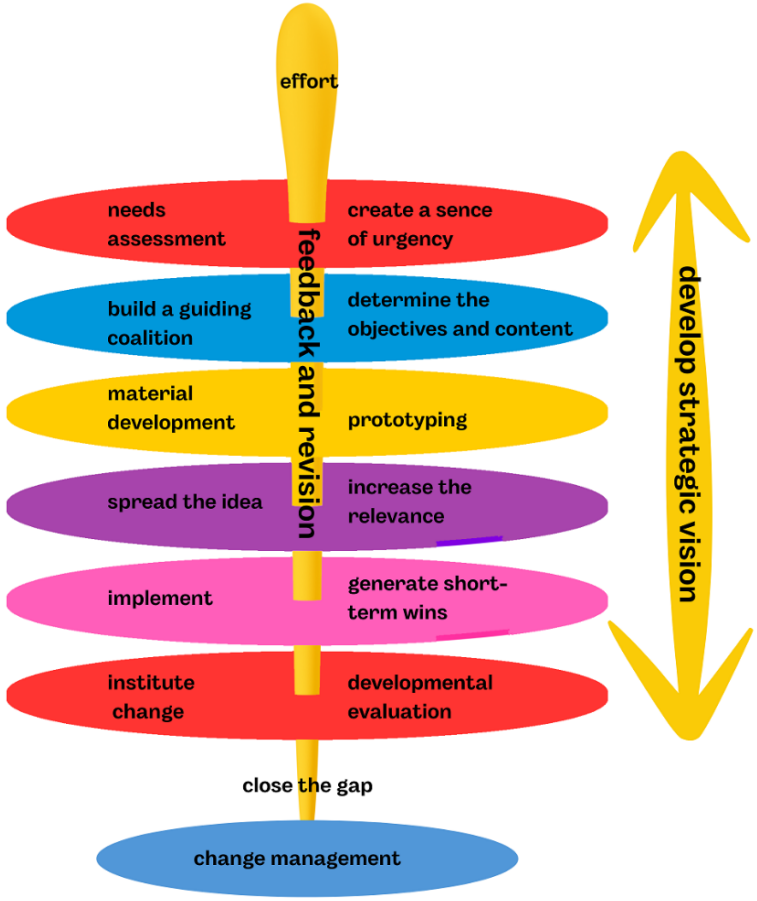

Figure 2. Spinning model from the inside

Spinning model is presented in a spinning toy form, where a lever on the top (effort) makes the whole top toy run. The model constitutes a system-oriented instructional design model with the intention to guide educational innovation-decision processes. According to Rogers, the innovation-decision process characterizes passing from gaining initial knowledge of innovation through forming an attitude towards innovation, to making a decision to adopt or reject, to implementing a new idea, and to confirmation of this decision. All of the stages of the innovation-decision process are presented in this model, focusing not only on the general idea of the main steps but also on the activities that need to be done at each stage. With the theoretical background of Fullan's educational change framework and Roger's diffusion of innovation model, the Spinning model combines ADDIE and change management stages as an attempt to create a more detailed overview of an educational change process as a suitable tool for managing large-scale projects.

The spinning model has 7 phases: *project generation, conceptualization, contextualization, action, persuasion, adoption, and maintenance.* Throughout all these stages feedback and revision and developing a strategic vision with a background in change management go. Each of the presented phases is presented in cycles with two more substeps, and to run these cycles it is always important to put enough effort.

Based on this the Figure 1, the following conceptual formula of project success is presented in equation [1]. Project Success is a ratio, in which Effort and Vision magnify the effect of the sum total of the model components, but change management, if not addressed appropriately, may undermine this combined outcome:

$$\text{Project Success} = \frac{\text{EF} \times \text{VIS} \times (\text{PG} + \text{CC} + \text{ACT} + \text{PER} + \text{ADP} + \text{M})}{\text{CM}}, \qquad [1]$$

where *EF* is Effort, *VIS* is Develop Strategic Vision, *PG* is Project Generation, *ACT* is Action, *PER* is Persuasion, *ADP* is Adoption, *M* is Maintenance, and *CM* is Change Management.

Project generation

The first phase - project generation - begins with **a needs assessment** to identify the goals of the project and gather information about the stakeholders. For effective assessment at the beginning of a project, it is necessary to evaluate the current situation from different perspectives and assess the need for change in each particular dimension. As an example of an

FEA tool, PESTLE analysis (see Srdjevic et al., 2012, for a review of the PESTLE protocol) can be used for the distribution of possible factors influencing the current possibilities and barriers to changes. At this stage, the attempt to identify a performance problem also takes place.

The second part of this cycle is **creating a sense of urgency,** and its primary goal is to examine the opportunities for effective interventions through planting the idea of innovation among the stakeholders. It can help to explore their attitude towards changes and coordinate the future steps towards adoption.

Throughout the process, there should always be feedback and revision. In case a sense of urgency didn't give any positive result, there should be a revision of the objectives and adding new steps to increase the stakeholders' likelihood of **developing a strategic vision** promoted. If revision shows that it is time to move forward, the next stage can be started.

Conceptualization and contextualization

To implement any change, there should always be a **guiding coalition** - a team of innovators, opinion leaders, gatekeepers, and early adopters - a guiding coalition of influential stakeholders from various cross-functional departments and different institutional levels; people whose primary interest is to adopt this change. At this stage, the strengths and weaknesses of a coalition need to be analyzed and a communication plan with the other stakeholders developed.

Along with that, **determination of objectives and content** and contextualization can also answer some questions of the communication plan and further steps of interaction with the majority and laggards who can slow or reject the educational intervention. Before that, during the project generation stage, primary project goals have already been identified, however, the need for the training objectives formulation is still required. By that time, a guiding coalition already knows the current system's weak spots and can confirm or modify the performance problem to start working on the content for closing the gap. Activities for forming a strategic vision with the team and all stakeholders should also appear on this stage, as well as revision of every step towards the innovation in order to escape the stakeholders' rejection.

Action

This stage focuses on **materials development** and **prototyping** of the changes. Materials development includes selecting the instructional design strategy and adopting it in relation to the educational context and stated objectives. This step involves the coalition team and continuous feedback/revision during the development process. **Prototyping** is intended to the materials development, and it may take several cycles to finish this stage, as development, prototyping, feedback, and revision along with developing strategic vision may take some time before the prototype developed is approved by the guiding coalition to start the next cycle.

Persuasion

Persuasion stage tries to gather the individual thresholds for adoption along with the critical mass for adoption. By **spreading the idea** and **increasing its relevance** following Rogers (2003) five perceived attributes of innovation are meant: (1) the type of innovation-decision, (2) the nature of communication channels diffusing the innovation at various stages in the innovation-decision process, (3) the nature of the social system in which the innovation is diffusing, and (4) the extent of change agents' promotion efforts in diffusing the innovation, (5) affect an innovation's rate of adoption. Each of these variables is equally important in adopting the changes. Change agents and opinion leaders play a vital role in this stage as they work directly with the majority for clarifying the relationships between the organization and innovation. Communication channels have the greatest impact on the success of this stage, where prior to the interaction, targeting has to be made for customizing the design and delivery of communication. **Feedback and revision** are presented by measuring opinion leadership and network links; adopting the persuasion strategies according to these links; measuring the audience's attitude about the innovation and whether the critical mass for adoption has been reached. This cycle is one of the most important ones as it determines the project's success as it precedes the **adoption stage.**

Adoption

The phase that ascertains and concludes whether the previous phases have been done according to the model plan, feedback/revision has been conducted under the necessary

circumstances, strategic vision has been developed to a certain level that made the **adoption** possible. In case any of these variables by this stage have not been presented, and the critical mass has not been reached, the adoption is not possible. Rejection of the changes at this stage will mean the failure of the project. In case it happens, it is recommended to gather feedback and make revisions on different levels, starting from the needs assessment and project's objectives, determination of concept/context, assess the materials developed, and quality of spreading the idea along with the development of a strategic vision that should not seem foreign for the audience anymore. After the revision has been made and critical errors analyzed, it is suggested to come back to the stage where the first error has been made to redo the stage according to the revisions implemented.

For the **implementation,** various techniques can be used. For example, a guiding coalition can use the Concerns-Based Adoption Model (CBAM) - a theoretical model for facilitating change that helps leaders and researchers understand, lead, and monitor the complex process of change in education (Hord, Rutherford, Huling-Austin, & Hall, 1987) which includes (1) Innovation Configuration, (2) Stages of Concern, and (3) Levels of Use. This model can be helpful in terms of assessing the audience's attitude to the changes (**feedback**) and **revising** the team's actions towards adoption. As a part of Concerns-Based Adoption, using tools like the Stages of Concern Questionnaire (SoCQ), Levels of Use Questionnaire (LoUQ), the Innovation Configuration Matrix (ICM) can help to correct the actions of the coalition team toward a successful project completion (Hord, Rutherford, Huling-Austin, & Hall, 1987). This stage also includes **generating short-term wins** which can include rewarding the people's contribution to the adoption, splitting the goal into small achievable targets for the stakeholders to create a feeling of satisfaction with the result, and other strategies.

Maintenance

This last stage is a never-ending cycle once the adoption has been finished. Here the stakeholders need to ensure that the innovation has become an integral part of the organization's culture and the institutional support of the leaders and team members (faculty/staff) is ongoing to continuously evaluate the innovation and its quality (**developmental evaluation**) and revise it according to the feedback given. The evaluation part of this stage has to confirm solving the performance problem and the extent to which the performance gap is being closed in order to

maintain th**e change management** and **revise** some actions to develop a new multidimensional strategic vision, that would help solidify the results of the innovation process. Referring to Fullan's educational change dimensions, it is essential to keep impacting all of them: (1) ensure that the revised materials are being used and updated according to the educational trends; (2) new approaches are being used, (3) alteration of beliefs has been accomplished and continues to be supported (Fullan, 2016).

Change management

As a foundation of any project, management is essential in the Spinning model as well. Managing the changes should be represented in four basic variables: (1) quality/performance specification; (2) cost (budget); (3) time; (4) scope. Change management ensures that the project is going to be successfully finished on time, within the budget and available resources. Human resources management specifications vary in the case of change management, as it is necessary to consider the people's attitude to the change being implemented and overall fidelity/resistance.

Strategic Vision

Developing Strategic Vision has been a part of every project's step due to the importance of changing the stakeholders' mindset toward the change that is being implemented. As mentioned during each step's description this ongoing process is vital as the success of adoption relies on that. A strategic Vision should be developed by determining the core values and promoting them using the influence of leaders and change agents.

Inspired by Kotter's Model, Rogers' Model and Ukrainian people's resilience. No to war.

Peer-critique

Jacques Safari Mwayaona

“Firstly, let's me congratulate your work for this well researched model you proposed. It is evident that you did research and learn alot to build a model that is very well supported by the litterature.

In terms of solving the problem stated, I cannot find better than your model. The condiration of change managemnt as the basis makes this excellent and most capable of integrating any kind of educational system. The model is already a billiant work.

However, we agree that change doen't happen overnight. It takes times and multiple iterations and numerous adaptations to be achieved. On the model, I struggle to identify how feedback will be used to inform next iterations of changes. I can see feedback on the same lever as effort and it is not clear how these two will combine or use the same channel. I also struggle to understand how do we know we have closed the gap and if not, restart the cycle (a new iteration)?

In the formula, I can see that EF and VIS are very emphasyzed more than any other elements. I recall that Effort was well explained in the presentation but VIS was not or was but not as extensively as EF.

Your model is very complex and would need pages of explanation since it is very difficult to be understood by a reader without sufficient background information.

In general, I would give you 20 out of 10 on this model since , as its complexity shows, takes seriously every single elements of the stated problem. I have not doubt that this model is perfect for the problem and, after few revision this model has the protential of serving any country shifting from one educational system to another. Congrats again for this wonderful work!”

My Answer

I briefly explained both EF (effort) and VIS (vision) during my presentation, and more details are presented in both in the equation [1] and Strategic Vision sections. Maybe I should have spent more time focusing on these sections during the presentation, however, for me it was pretty self-explanatory. Maybe I didn’t spend enough time thinking about hte indentent audience for the presentation and presented only the information I thought would be new to them. But I hope the final report includes answers to your questions.

Feedback is also presented throughout all the stages of the model. It is not on the same level with effort, and I showed this in the presentation - effort is what makes the spinning toy move (the lever) and feedback + revision is the mechanism inside of it. You may be right that without a

clear explanation, with just looking at the model it can be not easy to understand, and the model needs a little revision in terms of that.

I agree that the model overall is very complex, and diffusion of innovation, especially in an educational context is difficult to work on, therefore, I hope this complexity would help experienced instructional designers guide the coalition of innovators towards changes!

Mortaza Ismailzada

Below I've listed a few thoughts I had while reading your presentation slides and notes:

1. Problem Statement – You explained the context well connecting the 3 statements on your first slide. In your 2nd slide, it could have been more clear if you could sort of combine the context of the problem and blend it together to make your model's goal much stronger.

2. In your 3rd Slide, the visualization of 'Dimensions of Educational Change' laid out well. However, you could have included one bullet point example for each of the statement you listed there because for me, yeah it is easy to read the statements, but I was looking for a written example or bullet point to make it more clear for the reader to grasp the concept of educational change. Double check the spelling for Dimentions.

3. The communication plan component – This is a good communication outlet and a good start however, you may know it's beyond that if we want to bring changes into education system of a country.

4. I like the prop which is impressive that you designed your model into it. Does it the prop has a name?

5. For each component of your model, it would be a good idea to include who is responsible for each step. I may be wrong, you may written that in your project report.

6. Does your model has a specific name?

Overall, It was an excellent presentation and an incredible model and a good start. Great Job!

My Answer

1. Sorry, I don't understand what you mean by that, I believe I explained the problem goal clear enough and combined with the context.

2. Thank you for your comment on the spelling. It was quite embarrassing. I will doble check the spelling in the final report. I could have said some examples of the dimensions orally, but if they were on the slides they would have been too wordy to my liking.

3. I understand that if we talk about the whole country's changes, there should be much more stakeholders than I listed. However, the educational system of Ukraine is presented in a way that government releases a law, and universities separately should follow it. Therefore, I go from the idea that every university implements the law using the available tools. And the model I suggest is the tool for the implementation. If I have looked from the governmental perspective, I would have certainly included more stakeholders, but here I believe they are suprasystem that for this project are hidden for simplicity.

4. If you are asking about the model's name - it is the Spinning Model. For some reason, I forgot to mention it in class.

5. You are right that including the stakeholders responsible would help in the educational project's implementation while using the model in the future. I may do it later. Mostly, the stakeholders depend on the guiding coalition choices.

6. Answered in question #4.

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