# Ethics for Digital Design

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## PROMOTING ETHICAL EXPERIENCES FOR DIGITAL INTERFACES

### OVERVIEW

ethix has developed a set of resources that can be used by design teams to bring ethics into the design process.

Negative user experiences and wider societal consequences associated with digital interfaces and products have revealed the necessity to include ethical reflections in the design process.

When innovative design is responsive to values that encompass individuals, communities/societies/environment, and the company, resulting products decrease their inherent ethical risk factors. This process requires a focus on specific features and functions of the product and how these are linked to values.

### PROCESS

We have devised tools to help you and your team look at ethical practices in your design process for 3 different categories:

**1. Values**

The workshop helps creates a list of goals that are concretely embedded in the product's features and functions and reflect certain values. Reflecting on these values is important for understanding the diverse stakeholders and risks that may be associated with the product.

**2. Stakeholders**

This workshop details possible direct and indirect stakeholders so that the team can have a better sense of the wide impact the product may have.

**3. Risks**

Once part 1 and 2 have been completed, the information can be used for an in depth risk analysis of your interface or product, which will help identify potential ethical tensions. The identified tensions will be classified by their priority level and responsibility in order to develop risk mitigation strategies that can be assigned within the team.

„This is our suggested order and organization. You can also combine these resources in any way that makes sense to your team."

Made possible by MIGROS Pioneer Fund

# Ethics for Digital Design

## MATERIAL

- ethix resources
- Post-it Notes
- White board or flip chart
- Different colored pens

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## 2. STAKEHOLDERS WORKSHOP

The instructions below are our suggestion on how to organize the following workshop (Estimated duration: 1-2 hours). Detailed instructions for each step can be found on the back of resources.

**Instructions for Facilitators**

| Step | Instructions |
|---|---|
| 1 | • Have individuals fill out **Envisioned Goals of the Product** on their own for about 10 min. Give ample time to allow for secondary and tertiary answers to come to light with another 5-10 minutes for reflection. There may be some "bored" time, but this can lead to better creative answers.<br>• Have individuals cluster their own answers (they may have the "same" goal for multiple features) and write these on Post-it Notes referencing as a note on the bottom which features/functions they stem from. |
| 2 | • Have one person at a time begin placing their Post-it Notes on the white board, stating the goal, why it is important and what features/functions it comes from.<br>• As subsequent participants place their answers, have the group begin clustering answers by similarity (which goals fall under one cluster).<br>• NOTE: if any answers are scrapped, have the team provide a reasoning why they are not considered important/right. |
| 3 | • Carry over the Goal Clusters from Step 2 on Post-it Notes or as a list.<br>• Organize Goal Clusters by broad stakeholder categories (Users, Society/Environment, and Business), fill out the **Stakeholder Map.** For each goal cluster, try to answer the following question: which stakeholder category does this goal have an impact on?<br>• Did you focus on things in all three categories? Is one category rarely mentioned? Can you think of any more as a team?<br>• Note: one goal cluster may fall into one or more categories which may (in some cases) be a clue to further subdivide the goal cluster. |

# ENVISIONED GOALS OF THE PRODUCT

## PURPOSE

The **Envisioned Goals of the Product** has participants document existing, planned or imagined specific product features and functions. This includes the visible features (e.g. chat bot, buttons, social connection options, photo upload options, etc.) that are seen when using/operating the product as well as invisible functions that are part of the experience or operations (e.g. data processing, background algorithms, etc.). Then participants document what goal or added value each specific function/feature fulfills. This is answering "why" or "on what grounds" the function/feature is part of the product or service.

The resulting list of goals can be compared to company values to see whether the goals and align with them. This can help direct what might need to be re-designed or re-developed in order to uphold values considered important by the company. Results can also be used with the Stakeholder Map to **analyze whether or not all categories are equally represented.**

## INSTRUCTIONS

- Give each participant a copy of the Envisioned Goals of the Product (or more if needed).
- Individually have each participant fill out the Envisioned Goals of the Product as follows:
  - At the center write the product or service that will be focused on.
  - On each stem (the line extending out directly from the center) write a specific feature (e.g. chat bot, buttons, social connection options, photo upload options, etc.) or function (e.g. data processing, background algorithms, etc.). Be as specific and extensive as possible. If needed, create a second diagram on the backside.
  - On each leaf (extending out from the stems) write the goal(s) of the feature or function. Add as many leaves as you like.
    Questions you might ask yourself are:
    - Why are we including this feature?
    - What benefit or added-value does this feature or function provide a user, our company, the environment, stakeholders, etc?
    - What is the goal of this feature?
- Be sure to give ample time for creative and less straight forward answers to be documented. This may take longer than expected with some "down time."
- Come together and begin clustering answers to develop a list of goals that are derived from concrete features and functions of the product.

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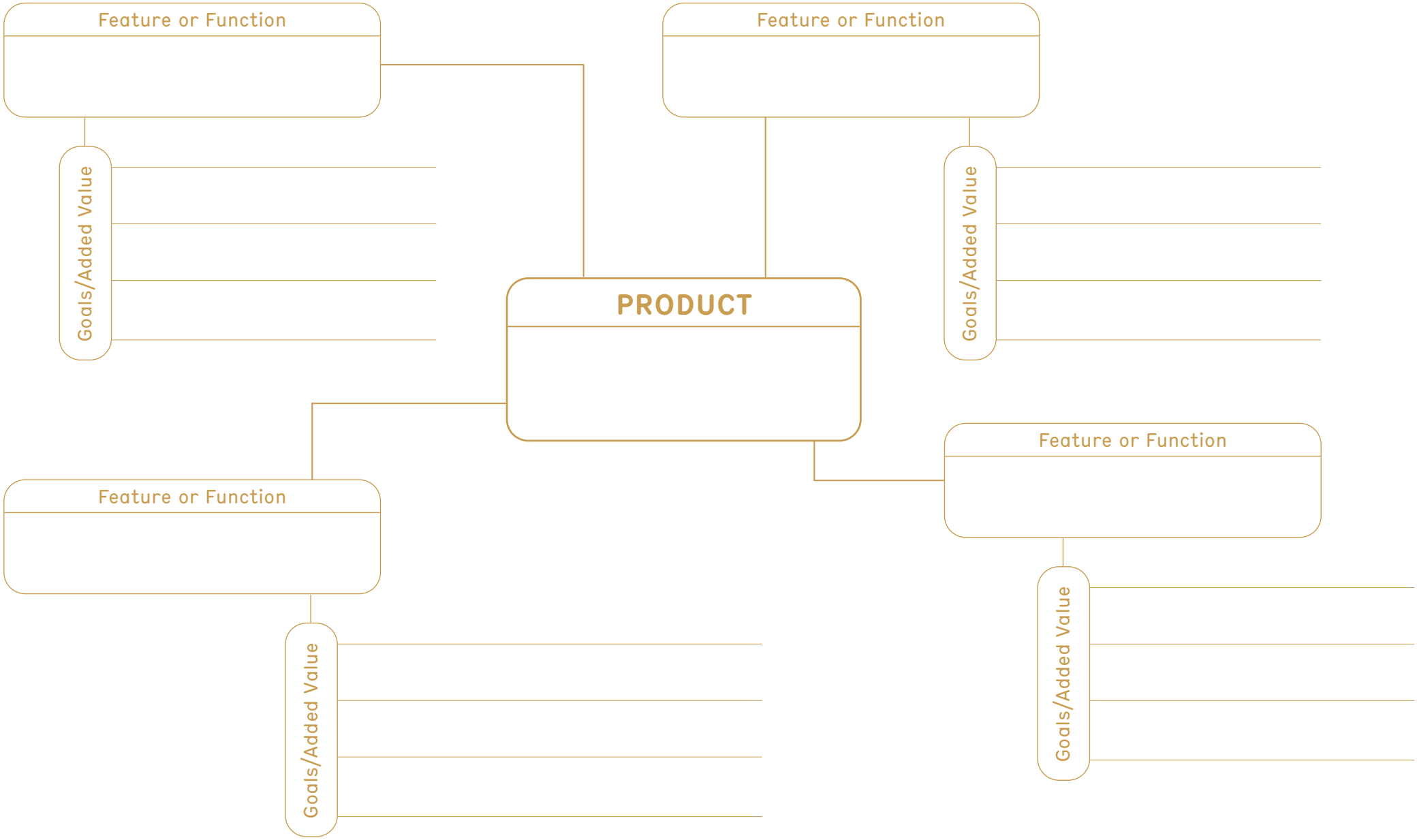
# ENVISIONED GOALS OF THE PRODUCT



# STAKEHOLDER MAP

## PURPOSE

The **Stakeholder Map** is meant to provide teams working on products a moment of clarity of where their focus is and what they may be neglecting. At any given phase during product research and design when a list of features, planned impact, risks, etc. has been generated, the matrix may be used to categorize these into three categories on which they may have an impact: users, society/ environment, business. The matrix is useful in conjunction with other ethix resources: Envisioned Goals of the Product, Stakeholder Map

## INSTRUCTIONS

- Using answers resulting from **Risk Brainstorming Worksheet, Risk Priority Matrix, Risk Responsibility Matrix, Envisioned Goals of the Product**, or other documentation, fill out the **Stakeholder Map** to define the areas of impact of the product being analyzed.
- Note: Any one goal, stakeholder or risk cluster may fall into one or more categories.
    - Ex: Teachers could be a stakeholder cluster and can be seen on the level of individual users. Teaches may also fit into the society category since they are a large part of social infrastructure impacting “education.” Perhaps you need to split into two groups “individual teachers” and “teaching teams” to accommodate the influences your product may have.
- After filling out the map, see what category is most heavily focused on. This can provide the team with areas that need to be better addressed or balanced out so that product development is reactive to the different categories.

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# STAKEHOLDER MAP

## USER

## SOCIETY/ ENVIRONMENT

## BUSINESS

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## 1. VALUES WORKSHOP

The instructions below are our suggestion on how to organize the following workshop (Estimated duration: 1-2 hours). Detailed instructions for each step can be found on the back of resources.

### MATERIAL

- ethix resources
- Post-it Notes
- White board or flip chart
- Different colored pens

**Instructions for Facilitators**

| Step | Instructions |
|---|---|
| 1 | • Have individuals fill out **Stakeholder Analysis - Individual Brainstorm** on their own 15 -20 min. Give ample time to allow for secondary and tertiary answers to come to light. There may be some “bored” time, but this can lead to better creative answers.<br>• Have individuals write these on Post-it Notes. |
| 2 | • Have one person at a time begin placing their Post-it Notes from step 1 on a white board or flip chart.<br>• As subsequent participants place their answers, have the group begin clustering answers by similarity (which represent the same impacted groups?) |
| 3 | • Using results from Step 2, organize stakeholder clusters by broad stakeholder categories (Users, Society/Environment, Business). Do so by using the **Stakeholder Map.** For each goal cluster, try to answer the following question: which stakeholder category does this goal have an impact on?<br>• Did you focus on stakeholders in all three categories? Is one category rarely mentioned? Can you think of any more as a team? |

# STAKEHOLDER ANALYSIS

## PURPOSE

To develop a clear understanding of who or what a specific product has a direct or indirect influence on. The team will be able to develop categories of influence that span direct and indirect areas of influence: in other words the stakeholders. We conceptualize “stakeholders” broadly to include individuals, different groups or categories of people, businesses, environmental sectors and community/societal institutions. This can help strategies future iterations of the product by encouraging responsibility to be taken towards different categories of stakeholders.

## INSTRUCTIONS

- Have the team agree on one product or service of the company to evaluate before starting.
- Give each participant a copy of the Stakeholder Analysis: Individual Brainstorm sheet.
- Give ample time to fill out the sheet with down-time for creative and new answers to turn up (this may take longer than expected). Try not to rush this.
- Come together to cluster individual answers into the main agreed upon categories. Be sure there are some from each of the three categories.
- Use these categories to discuss where and how the team would like to take responsibility. Also be sure to discuss why responsibility is not taken in relation to the remaining categories.
- Strategize next steps to incorporate analysis of the documented stakeholders.
- Document answers to come back to when needed.

# STAKEHOLDER ANALYSIS
## INDIVIDUAL BRAINSTORMING

**Direct:** whom or what does the product intentionally and directly influence?
(ex: Students, Teachers and Caregivers are direct users of the online edu platform)

**Indirect:** whom or what does the product unintentionally influence?
(ex: children whose parents use social media appear on that platform)

**Unintended:** whom or what could the product influence in unplanned ways?
(ex: when the product is used by the government instead of private individual users, there could be a wider societal influence...)

Now think about if the product was widely used globally...

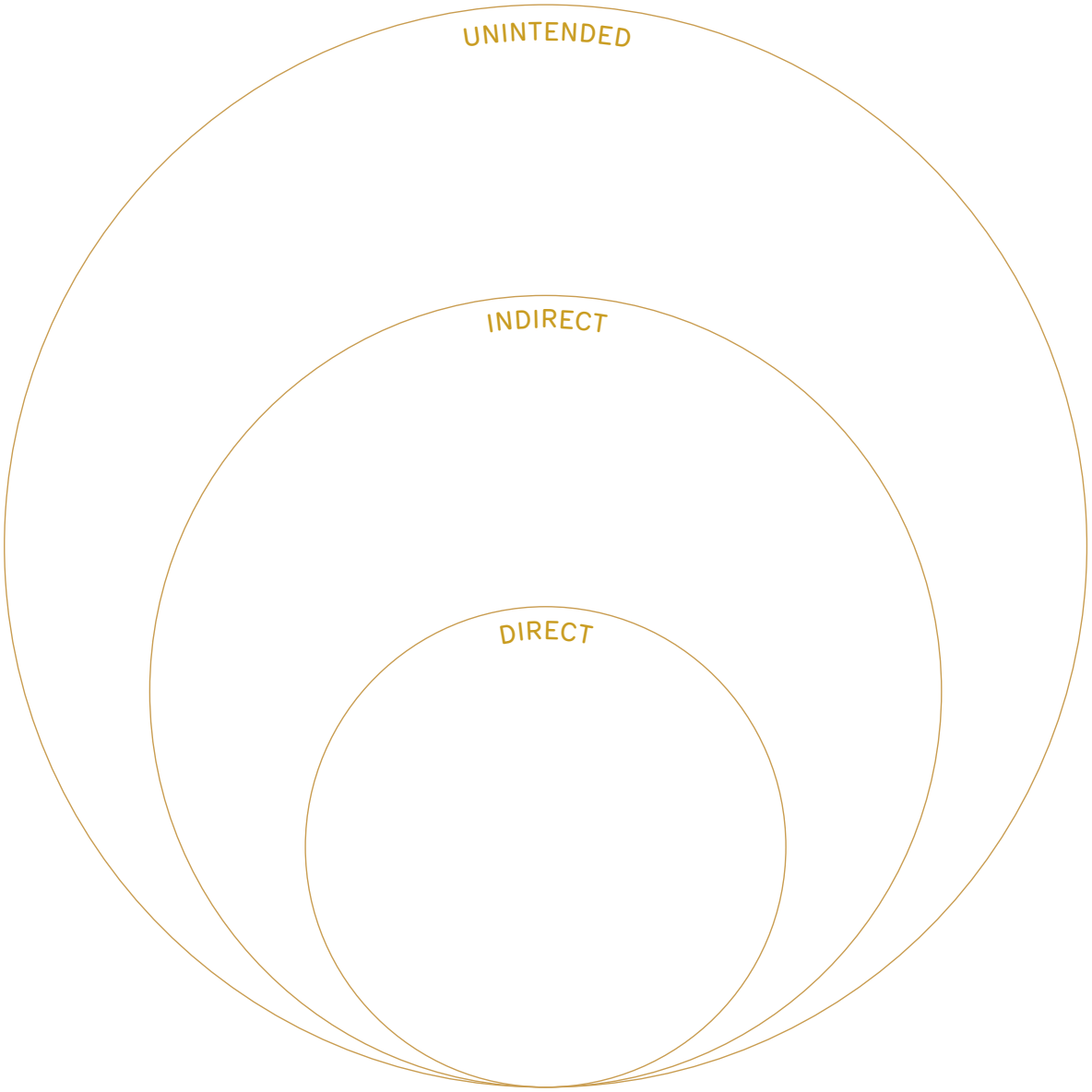
... who or what does the product have an influence on?

... who are the possible users?

... are there influences on specific environmental sectors?

... are there influences on specific societal sectors?

... what are the influences on your company?



# Ethics for Digital Design

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## MATERIAL

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- Different colored pens

## 3. RISK WORKSHOP

The instructions below are our suggestion on how to organize the following workshop (Estimated duration: 1.5-2.5 hours). Detailed instructions for each step can be found on the back of resources.

**Instructions for Facilitators**

| Step | Instructions |
|---|---|
| 1 | • Have individuals fill out **Individual Risk Brainstorming** on their own for 15 -20 min. Give ample time to allow for secondary and tertiary answers to come to light. There may be some "bored" time, but this can lead to better creative answers.<br>• Have participants think about what features/functions the risk might be specifically tied to. |
| 2 | • Have one person at a time begin placing their Post-it Notes from step 1 on the white board.<br>• As subsequent participants place their answers, have the group begin clustering answers by similarity (which Risks fall under one cluster).<br>• For now, all answers should be incorporated. |
| 3 | • Using results from Step 2, organize risk clusters by broad stakeholder categories (Users, Society/Environment, Business). Do so by using the **Stakeholder Map.** For each goal cluster, try to answer the following question: which stakeholder category does this goal have an impact on?<br>• Did you focus on things in all three categories? Is one category rarely mentioned? Can you think of any more as a team? |
| 4 | • Create a large scale version of the **Risk Priority Matrix** on white board, flip chart, etc.<br>• As a group place each of the Risk Clusters from Step 2 into 1 of the 4 quadrants.<br>1. High likelihood of occurring and high impact<br>2. Low likelihood of occurring and high impact<br>3. High likelihood of occurring and low impact<br>4. Low likelihood of occurring and low impact |
| 5 | • Continue with risk clusters from Step 4 that fell into quadrants 1, 2, or 3 (1 having the highest priority).<br>• Create a large scale version of the **Risk Responsibility Matrix.**<br>• As a group place each of the Risk Clusters on the matrix.<br>• Document on a list or Post-it Notes all Risks in quadrants 1. These should be top priority for new design strategies.<br>• For Risk Clusters in 2, 3, 4 and 5 begin workshop to decide on whether they can move or should move categories to potentially increase responsibility or control. Challenge yourselves as a team to avoid answer such as "That is a government problem," or "That's a user problem." How might you change the product to minimize the risk and be responsible for it?<br>• Assign teams or individuals to develop strategies to iterate the design to address risks in quadrants 1, 2, and 3. Be sure to revisit the Values and Stakeholders to help inform the strategies and think about what impact design changes will have. |

# RISK BRAINSTORMING

## PURPOSE

To develop a clear overview of the risks involved in or stemming from a specific product the company has agreed to do an analysis of. The Individual Risk Brainstorming Worksheet is intended for each participant to individually fill out so answers can later be pooled and organized. The result should be an exhaustive list of potential risks involved with the product in question in three different possible areas: users, society/environment, and business.

## INSTRUCTIONS

- Have individuals fill out the Individual Risk Brainstorming on their own for 15 -20 min. They should be focused on risks specifically associated with the product being analyzed.
    - Make sure to provide an overview of the results from the Envisioned Goals of the Product and Stakeholder Analysis. These should be used to deepen the risk brainstorming. Questions to ask could include: How might our goal X linked to feature Y be problematic in the long run or if many end up using our product? How are stakeholders differentially impacted or what risks does the product have for specific stakeholders?
- Give ample time to allow for secondary and tertiary answers to come to light.
- Have individuals write their answers on color coded Post-It notes (for example, User = pink; Environment/Society = blue; Economy = yellow; or come up with your own agreed upon colors).
- Have one person at a time begin placing their Post-It notes on the white board.
- As subsequent participants place their answers, have the group begin clustering answers by similarity (which Risks fall under one cluster).
- Document all resulting “Risk Clusters”.
- Check to see if the team has thought about all three categories of risks (users, society/environment, business).
- Use the resulting list of Risk Clusters to strategize iterations of the product and how the company plans to take responsibility for these risks.
- Results can subsequently be used to complete the Risk Priority Matrix to establish which risks need to be more urgently addressed.

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# INDIVIDUAL RISK BRAINSTORMING

Refer back to your list of envisioned goals and stakeholders to help brainstorm ideas.

- What intended and unintended risks can result from the product's use?
- How might the product be used in unintended ways?
- In what ways could the product lead to negative outcomes?

## USER

## SOCIETY/ ENVIRONMENT

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# STAKEHOLDER MAP

## PURPOSE

The Stakeholder Map is meant to provide teams working on products a moment of clarity of where their focus is and what they may be neglecting. At any given phase during product research and design when a list of features, planned impact, risks, etc. has been generated, the matrix may be used to categorize these into three categories on which they may have an impact: users, society/ environment, business. The matrix is useful in conjunction with other ethix resources: Envisioned Goals of the Product, Stakeholder

Analysis: Individual Brainstorm, Risk Brainstorming Worksheet, Risk Priority Matrix.

## INSTRUCTIONS

- Using answers resulting from Risk Brainstorming Worksheet, Risk Priority Matrix, Risk Responsibility Matrix, Envisioned Goals of the Product, or other documentation, fill out the Stakeholder Map to define the areas of impact of the product being analyzed.
- Note: Any one goal, stakeholder or risk cluster may fall into one or more categories.
    - Ex: Teachers could be a stakeholder cluster and can be seen on the level of individual users. Teaches may also fit into the society category since they are a large part of social infrastructure impacting “education.” Perhaps you need to split into two groups “individual teachers” and “teaching teams” to accommodate the influences your product may have.
- After filling out the map, see what category is most heavily focused on. This can provide the team with areas that need to be better addressed or balanced out so that product development is reactive to the different categories.

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# STAKEHOLDER MAP

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# RISK PRIORITY MATRIX

## PURPOSE

To develop a clear understanding of which risks are a priority for the company. Risk Clusters can be generated using our Risk Brainstorming Worksheet beforehand, or can be taken from other prior documentation.

## INSTRUCTIONS

- Create a large scale version of the Risk Priority Matrix on white board, flip chart, etc.
- As a group place each of the risk clusters resulting from the Risk Brainstorming Worksheet (or from another source document) onto the matrix so they fit into the following quadrants:
  - Quadrant 1: High likelihood of occurring and high impact
  - Quadrant 2: High likelihood of occurring and low impact
  - Quadrant 3: Low likelihood of occurring and high impact
  - Quadrant 4: Low likelihood of occurring and low impact
- All risks placed in quadrant 1 are considered a high priority for the company to address and manage. Quadrants 2 and 3 are of medium priority and Quadrant 4 low. Though special attention should be paid to the potential high impacts in quadrant 3.
- For quadrants 2 and 3 have a discussion about which of these risks are important to pay attention to (they may all be). A good exercise is to clearly justify why some make the cut and others do not. Could you defend this answer to a potential customer or a reporter after something has gone wrong and your company is facing reputational damage?
- Document risks from quadrant 1 and those to be kept from quadrants 2 and 3. Write a justification why the others are not being kept.
- Use the resulting list of risks for the Risk Responsibility Matrix or to strategize product iterations or other means of mitigating the risk.

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# RISK PRIORITY MATRIX

| | LOW IMPACT | HIGH IMPACT |
|---|---|---|
| REALISTIC | 2 | 1 |
| UNREALISTIC | 4 | 3 |

# RESPONSIBILITY MATRIX

## PURPOSE

To develop a clear understanding of what risks the company will take responsibility for and justifications for the ones they will not. Risk Clusters can be generated using our Risk Brainstorming Worksheet beforehand and can be prioritized using the Risk Priority Matrix.

## INSTRUCTIONS

- Create a large scale version of the Risk Responsibility Matrix on a white board, flip chart, etc.
- As a group, place each of the risk clusters that have been marked as priority (see Risk Brainstorming Worksheet and Risk Priority Matrix) on the matrix based on what level of control you have over the risk and, thereafter, whether or not you take responsibility.
- Document all risks in quadrant I – these are already within your control and you are taking responsibility. Set this list aside to be added to later.
    - For Risk Clusters in Quadrants II, III, IV and V (leave out Quadrant VI) begin discussion workshop to decide on whether they can be “shifted” to either into a higher level of control (bottom → up) or to the responsibility column (left → right).
      Some guiding questions:
        - What features or functions might have to change to give you that control or allow you to take responsibility?
        - Imagine you could hire someone with a new job title in order to take control and responsibility for the risk in question. What would be the job and how would that help?
- Add to your initial list any risks that have shifted into your responsibility and how (what adjustments did the company make to elevate the control and responsibility they can enact in relation to the risk).
- For those not shifted, write a justification of why not.
    - Also imagine under what conditions you would be able to have more control or responsibility.
    - Imagine an interviewed with a reporter – how would you reason that you had not taken responsibility for this risk?
- At the end compile a list of all the risks that are now in the right column and use these to devise strategies for future product iterations/development.

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# RESPONSIBILITY MATRIX

| | We do not take responsibility | We take responsibility |
|---|---|---|
| Direct Control | 4 | 1 |
| Indirect Control | 5 | 2 |
| Low or No Control | 6 | 3 |