Abay-lnspired Refractive Amphoras Against Echo Chambers

Yankı Odalarına Karşı Abay-Esinli Kırılım Amforaları

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Abstract

The social media environments, where ideas and beliefs are directed by a single ideology thorough amplified or reinforced information, are commonly defined as echo chambers. Due to its mind-narrowing impact, echo chamber has emerged as a significant problem in communication and knowledge sharing at social media with its nature to censor competitive views. To provide a possible intellectual solution to these relevant problems and issues, the paper aims to reveal what cultural words of wisdom, conceptualization of reflection and refraction, world's order of nature, and metaphorical interlink among these could do to help us. The initial inspiration of this work is Abay Kunanbayev as a prominent historical figure, philosopher, and the author of The Book of Words. The resulting work mainly benefits from Irtysh and Ulba Rivers, as they do not mix, when they meet with each other as a metaphor. Then it links this metaphor with reflective and refractive interactions, and the conceptualization of inter-cultural knowledge amphora in contrast to intra-cultural echo chambers. Following this link, Abay's Words on knowing and importance of heart in doing so are presented to identify possible solutions to the challenges emerge with echo chambers. In conclusion, a proposition is made for the use of refractive knowledge amphora to address the problems that echo chambers cause, benefiting from the arbitration of heart, suggested by Abay. Through refractive amphoras that facilitates arbitration of heart, cross-cultural interactions can be achieved, resulting in an open mind and new knowledge generation.

Keywords: Abay; Irtysh River; Ulba River; Kazakhstan; refraction; reflection; echo chamber; knowledge amphora; Abay Kunanbayev.

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Öz

Fikirlerin ve inançların tek bir ideoloji tarafından güçlendirilmiş veya pekiştirilmiş enformasyon ile yönlendirildiği sosyal medya ortamları, genellikle yankı odaları olarak tanımlanmaktadır. Zihin kısıtlayan etkileri nedeniyle, yankı odaları, rekabetçi görüşleri sansürleme doğası ile sosyal medyada iletişim kurma ve bilgi paylaşımında önemli bir sorun olarak ortaya çıkmıştır. Bu problem ve konulara alternatif düşünsel çözüm önerisi bulmak amacıyla, bu çalışma bilgelik sözleri, yansıma ve kırılmanın kavramsallaştırılması ile dünyada doğa düzeni arasındaki metaforik ilişkilendirmeleri ortaya koymaktadır. Çalışmanın temel esin kaynağı, Sözler Kitabı'nın yazarı, önemli bir tarihi figür ve filozof olan, Abay Kunanbay'dır. Ortaya konulan çalışma, öncelikle İrtiş ve Ulba nehirlerinin fiziksel olarak birbirlerine karışmamasına rağmen, birbirleri ile olan etkileşimindeki mecaza odaklanmıştır. Bu çalışma ayrıca, ele alınan mecazı, yankı odalarının aksine, yansımalı ve kırılmalı etkileşimlerle ve bilgi amforasının kavramsallaştırmasıyla ilişkilendirmiştir. Bunun yanında, Abay'ın bilgi edinme ve bir eylemi gönülden gerçekleştirmenin önemine ilişkin sözleri, yankı odaları ile birlikte ortaya çıkan zorluklara alternatif çözüm getirmeyi amaçlamaktadır. Sonuç olarak, Abay tarafından önerilen kalbin tahkiminden yararlanarak, kültür-içi yankı odalarının neden olduğu sorunları ele almak için kültürler-arası kırılımlı bilgi amforasının kullanılması için bir öneride bulunulmuştur. Kalbin karar vermesini kolaylaştıran kırılım amforaları sayesinde kültürlerarası etkileşimler sağlanabilir. Bu şekilde de, geniş bir bakış açısı oluşturulmasının ve bilgi üretim sürecinin gerçekleştirilmesinin önü açılabilir.

Anahtar Sözcükler: *Abay; İrtiş Nehri; Ulba Nehri; Kazakistan; kırılma; yansıma; yankı odası; bilgi amforası; Abay Kunanbay.*

Introduction

As the use of social media tools or applications such as Facebook and Twitter diffuses into our society, studies on their impacts also increase, and one of their findings suggests that social media could be narrowing our minds, as "users are disproportionately accessing opinions which reinforce what they already believe." ("Research reveals Facebook", 2015). Especially, from the perspective of politics, the social media applications can be easily used to manipulate potential voter's decisions. An example can be given from the final days of the last decade. At that time, the Facebook company had gathered reactions and attentions with the Cambridge Analytica, resulting in a user profiling scandal (Güden, 2019):

> In a contemporary scale, Cambridge Analytica is a well-known company among the leaders of the countries such as United States and United Kingdom as well as third world countries, which are using social media to monitor and control their citizens. This company has been using the social media platforms to collect valuable information from the users, especially voters. The main information source for this company was the Facebook at that time. One of the well-known financial resources of the Facebook and the other social media companies was the users profiling, which is the information retrieval to create a profile for users with their personal data, such as search history, social tagging, and social network, among others. This profile later could be used to know a user profile information related with a specific topic, although it should be provided as part of big data of the voters not just the single user information. Accordingly Cambridge

Analytica and other data analysis firms can easily collect the location-based information of the political opinions of the voters against a political leader or a political topic. Even if this profiling includes certain ethical gray areas, this could still be acceptable, since in fact users allow this information to be used, when they decide to be a part of a social media platform, clicking the "I agree" button. The problem, however, starts, when the social media platform uses this information to manipulate the political stands of the users, in association with the contract-holders with the data analysis company.

At that time, Donald Trump Campaigns from the United States, and Brexit Supporters Campaigns from the United Kingdom were the contract holders. They used this big data and retrieved information to manipulate decisions of the opposite parties. Based on the created profile of a user, the content selection and display processes was applied by the Facebook. It should be noted that at that time, between Facebook and Cambridge Analytica there was a contractual relationship, as well.

To better exemplify: Let's assume, if a user was profiled as a supporter of the Clinton or supporter of the staying with the European Union, EU, as the opposing sides of the respective campaigns. To manipulate the voter decision, Facebook displayed anti-Clinton and anti-EU content to influence the voter view. Then it continued to display supportive content for the Trump and the Brexit, and never allowed to display other contents that support competitive view. It can then be said that, as a consequence, at that time most of the US and UK citizens were forced to stay in these manipulative chambers on competing sides, as illustrated in the below figure.
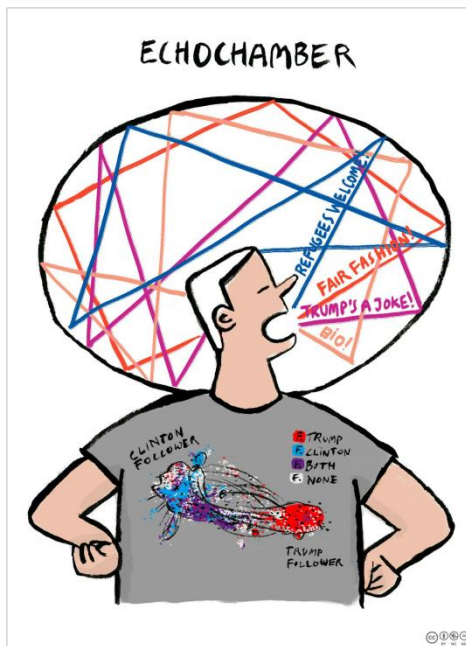

Figure 1. Echo chamber (Goethe-Institut Schweden, 2018)

This impact, which is called "echo chambers", causes from the fact that "we receive information from the same sources and witness the views of the same people in our personalized newsfeeds every day", with whom "*we're already in agreement about something,*" and as a consequence "*we only grow to agree even more by discussing the matter*" (Hendricks, 2014). For instance, Twitter could be tending "towards a leftwing mob mentality" (Marcus, 2012).

Even Facebook itself acknowledges similar narrowing tendency for its users, based upon its own study.

Seen as a significant personalized "bias thinking", ways to deal with echo-chambers-related-issues are suggested. For instance, in order to maintain an online open mind, people outside our comfort zone can be followed, opening our "eyes to a wider world view": "*there is plenty of ambiguity in life that the internet has a tendency to gloss over with false certainty, and it's always worth actively seeking these grey areas out, even if that doesn't feel as instantly gratifying as accepting an algorithm's increasingly accurate instincts about you*" (Martin, 2013). These suggestions to address echo-chamber phenomenon could also benefit from certain cultural and natural aspects, from the perspective of coauthors, which is the topic of this paper. In the following parts, co-authors' collected observations on natural wonders and insights of cultural masterpieces from an academic visit to Kazakhstan in 2018 and 2019 will be combined with co-authors' previous academic works in the earlier decade on applying natural reflection and refraction metaphors into social occurrences for learning of existing and creation of new knowledge.

Before creation of an application based of system solution, an intellectual perspective to a solution could be helpful. Like how the birds were inspired the invention of the planes, a physical, real world example could be helpful to build up this intellectual perspective that could be implementable to the real world systems. As a result, a new perspective of "refractive amphoras" to address echo-chambers will be suggested.

Natural Characteristics of Ulba and Irtysh Rivers
Irtysh River, which flows through Russia, China, and Kazakhstan is the main tributary of the Ob River, making up the longest tributary river in the world (Stoyashcheva & Rybkina, 2014). Called İrtiş in Turkish, it is also seen as a sacred river in Turkish mythology ("Türk mitolojisinde kutsal nehirler", 2018).

Ulba River is one of the rivers in Eastern Kazakhstan, which meets Irtysh River in Oskemen. The below image from Google maps, taken during coauthor's stay in Oskemen shows the point where both rivers meet.
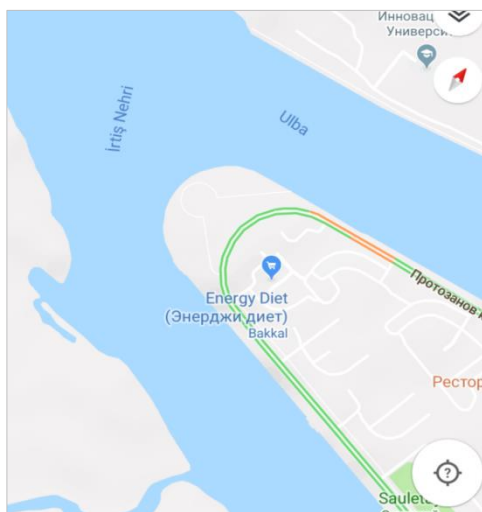

Figure 2. Meeting point of Irtysh and Ulba rivers (Google, n.d.)

While Ulba and Irtysh rivers meet in Oskemen, they do not mix with each other. This natural phenomenon presents an interesting real picture (and mental image) for the natives as well as visitors of Oskemen city.

Figure 3. Meeting point of Irtysh and Ulba (HalukSahin44, 2018)

Although spectacular, this is not the only one particular case, as there are other different rivers and water beds that meet but do not mix with each other, and different explanations attached for this situation ("Birbirine karışmayan nehirler", n.d.).

Our paper, however, approaches from a perspective that understands this natural phenomenon as a cross-border interaction between two different contexts or environments, or cultures, and accordingly interlinks it with other related interactions in the worldly nature or society. With respect to this perspective, Irtysh and Ulba rivers are like two echo chambers that do not mix with each other, even if they meet (online). These echo chambers can be changed into (refractive) knowledge amphoras. Benefiting mostly from the co-authors' previous work on the related subjects, this perspective is explained in detail in the next section.

Reflective and Refractive Interactions, and the Conceptualization of Knowledge Amphora

Benefiting from an understanding that interlinks natural and social phenomena metaphorically, reflection can be understood as seeing reality as it is in a more uniformity-oriented, homogenous context, while refraction complements this understanding as reconceiving and changing it in a more change-oriented heterogeneous context. In that sense, the physical phenomenon of refraction provides interesting metaphorical connections to social phenomenon of refraction. For instance:

> *Due to optical refraction the eyes perceive a spoon in a glass of water broken, which warns us that our perceptions and under-standings can mislead us, thus we have to critically reflect for the reality; again, the refractions in prism that turns white incident ray into different colors can be associated with more critical, cross-cultural creative ways of thinking, reminding us that even for one incident there could be various ways of interpretations.* (Medeni, Medeni, & Balci, 2011).

According to Medeni, Medeni, Balci, & Dalbay (2009), cross-border refractive and reflective interactions occur, "when and where two or more knowledge systems encounter so that their living entities initiate a knowledge-creating process. Within this process it aims to have a boundary-crossing, knowledge creation is initiated by the acquisition of not only extant but also new knowledge":

> *The cross-cultural reflection for the acquisition of extant knowledge addresses the reflective learning and practice that generate apparently new understandings that are not immediately related to specific existing knowledge although clearly they are based on what we know ... The cross-cultural refraction for the acquisition of new knowledge, addresses a more critical and creative type of reflection, for experiential learning and practice that facilitate emergent thinking to cross the boundary between different episteme as such reflection and new mindsets... (Medeni et al., 2009).*

Together, cross-cultural refraction and reflection "can contribute to crossing the boundaries from the 'reflection' to the 'emergence of new mindset,' as an initiating phase of knowledge creation." (Medeni et al., 2009, p. 8)

> *While reflections can then be understood as deeply dwelling upon existing knowledge as an intra-cultural interaction that relies on understanding, harmony, open idea and consensual decision; refractions can be understood as generating new knowledge as an inter-cultural interaction that can also rely on different understandings, misunderstandings, conflicts and confusions. Thus, refractions matches well with critical reflections; furthermore, from a different but related perspective, they can also contribute to creativity and cross-cultural communications. (Medeni et al., 2011, p. 22)*

Comparable perspectives with respect to reflection and refraction and its value for learning and knowledge management can be found elsewhere (for instance, Pagano & Roselle, 2015).

In this paper, however, this reflection and refraction perspective is utilized and further developed, benefiting from a conceptualization of knowledge amphora by the coauthors.

> *Knowledge amphora brings together various concepts and perspectives regarding the concepts of knowledge and amphora. Firstly, here knowledge and knowing should be understood as 'knowing-ship.' Here, knowing-ship can be considered a carrier that brings knowledge within different forms of entrepreneurship, creatorship, partnership, and leadership, among others. This metaphor of knowing-ship can be considered as a means that makes cross-cultural interaction more mobile, in comparison to more stable means, such as bridges or boundaries that provide space-times for such interaction. Such a notion of knowing-ship also conceptualizes 'knowing together and each other,' as 'everyone navigates on the same ship through the journey,' which can highlight a general model of cross-cultural interaction, as well as mobile, ubiquitous information and knowledge carriers (Medeni et al., 2011).*

In fact, such means that enable cross-border interactions and mobility, especially in floating water, may find their roots in other related words or conceptualizations such as:

• An anaphora as "a carrying up or as back" in Ancient Greek, and

• An amphora "a whirling eddy" (which fits well with the current understanding of knowledge creation as a spiral) in current Turkish (anafor),

• Or an amphora as "a carrying craft" in a more common sense with its all mental, real and virtual aspects of time-space, the last of which are already being represented by the well-known sign for the Internet navigation, @. (Medeni et al., 2011).

In fact, at first the @ symbol "was most likely used as an abbreviation for the word amphora which was the unit of measurement that determined the amount held by the large terra cotta jars that were used to ship grain, spices and wine… and was used to represent the cost or weight of something. For instance, if you purchased 6 apples, you might write it as 6 apples @ $1.10 each." ("When was the @ symbol", n.d.).

This conceptualization of amphora for border-crossing interaction for knowledge is illustrated in the below figure. Accordingly, through reflective and refractive interactions, knowledge expands compartment by compartment as an open spiral rather than a closed circle.
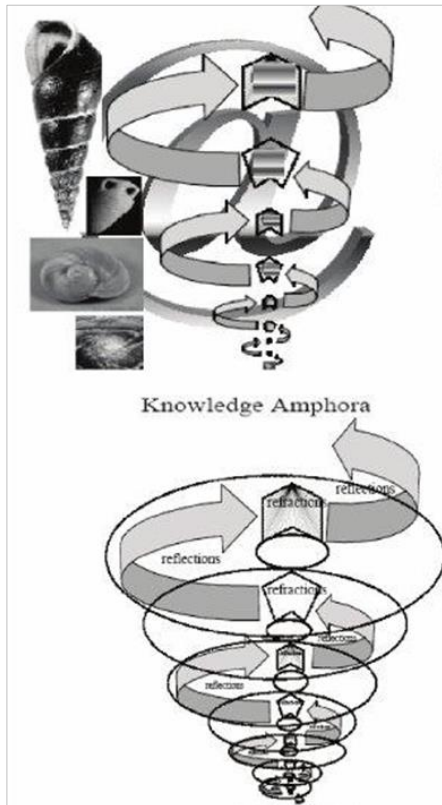

Figure 4. Knowledge amphora (Adapted from Medeni et al., 2011, p. 24)

Following the above discussion, another depiction of knowledge amphora and how reflection and refraction plays their complementary roles can also be found in the below figure. Here, a specific type of knowledge amphora, nautilus model, is suggested and the interplay of reflection and refraction as part of a knowledge-generating ever-expanding open spiral is more clearly illustrated.
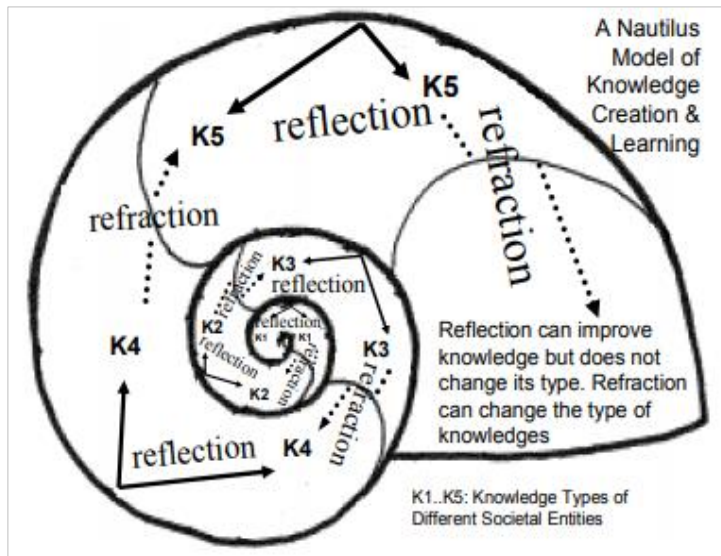
Figure 5. Model of knowledge creation and learning (Medeni et al., 2009, adapted from Figure 2, p. 11)

While amphora has this notion of interlink and open expansion via cross-boundary interactions, nevertheless, chamber is associated more with an enclosed, separated space-time (Amphora, n.d.). Meanwhile, echo often reminds the story of Echo and Narcissus, warning us to be aware of the reflective "trap of vanity or self-adoration" ("Echo and Narcissus", n.d.).

Accordingly, reflective echo-chamber is indeed a well-coined word and can be compared with refractive amphora, as suggested above, and can be used to deal with the problems that echo-chamber causes, by opening up people's existing perspectives into receiving and changing with new ones. A relatable understanding and teaching can also be found in Abay's words, as presented in the next section.

Abay's Words on Knowledge and Importance of Heart

Abay (Ibrahim) Kunanbayev a Kazakh poet, philosopher and a sage, who through his work expressed own understanding of life and created his humanistic teaching, instead of describing the reality of being and truth of life like the other writers. Beyond this, UNESCO announced 1995 as Year of Abay, acknowledging his prominent impact throughout the world (Ekrem, 2017).

Abay in his works calls to be a human, as well as suggests the path that leads to this. However, Abay did not come up with this teaching, he was very familiar with the humanistic teachings of Socrates, Plato, Aristotle, Al-Farabi, which had deep roots and formed long before him (Abdigapbarova, 2016). However, if Socrates taught his followers to "Know Thyself", Abay urged his nation to "be (hu)man" (Shon, 2017).

According to Abay, only with the unity of a bright mind, boiling energy, a warm heart or mind, strength and spirit will be strong manifestations of man. As a result of these thoughts of Abay, an understanding of the complete man appeared. His utmost work "The Book of Words" persuades Kazakh people to learn and be educated.

The doctrine of the complete man Abay reveals most fully the Word Seventeen, where the Will, Reason and Heart once asked Knowledge to settle their argument about who was the most important among them (Abay, 1993, p. 28).

According to Abay, the Reason is like a cold ice, and if there is no feeling that warms it, it will do more harm than good. The author reinforces his conclusion with the lines that the soul and body are inherent in animals, however, what is the beauty of life, if there is no reason and feelings, if there is no depth (Abay, 1994). Thus he calls upon the Reason and Will to submit to the heart.

> *"...You have many paths before your, Reason, but Heart cannot take all of them. It rejoices at your righteous undertakings and will gladly assist you in them, but it will not follow you if you plot mischief and evil; it will even turn from you in disgust.*

> *"Now, Will! You have plenty of energy and courage, but you, too, can be restrained by Heart. It will not hinder you in a well-meaning deed, but it will bind your hand and foot if your goal is futile and wicked.*

> *"You should join hands with Heart and obey it in everything! If all three of you live in peace within a man, the dust of his feet will open the eyes of the blind. If you two cannot reach accord, I shall give preference to Heart. Prize humanity above all! The Most High will judge us by this. So it is set down in the Holy Scriptures," said Knowledge* (Abay, 1993).

As this tale acknowledges the conversation among heart, will and reason as the three factors of human cognition in Abay's underlying philosophy, the arbitration of heart is needed so that we can achieve a good balance with will and reason, and know well. "Knowing by heart" is indeed underlines in Abay's teachings (Muhyaeva, 1997). Only the virtuous heart "is a source of kindness, humanism, nobility...and necessary to unite will, mind and heart", and to set our thoughts into motion ("The priceless philosophy", 2018). As Ömiraliyev (1993) asserts, according to Abay, in this life and world, which is a floating water, there is no going back, and there is no meaningful of longevity without heart.

Abay also suggests tolerance from different cultures (Ekrem, 2017). He also underlines the importance of "attractive force of the like": as we learn something new to us, we "start comparing it to similar things". However, according to him, it is also very important to check whether they are "similar in every way or only in some respects?" and until we "elucidate all the causes of similarity for" ourselves, we should "enquire about them" and "verify" our "suppositions", and unless we do so our "mind cannot rest". (Abay, 1993).

These selected teachings, among others, by Abay can be used as another solution to deal with the negative impacts of being or becoming similar in echo chambers, signifying cross-cultural interactions, new knowledge acquisition and critical thinking.

Conclusion with a Suggestion for Knowledge Amphora Benefiting from Arbitration of Heart

Following Abay's philosophy, heart (H) and its arbitration for knowledge can be seen as a refractive knowledge amphora in the floating water that transports knowledge (K) in space-time. Without heart and only with reason (R) and will (W) there is no newly added value or

meaning to the existing knowledge flow, however with heart the existing knowledge can be changed and enriched. In other words, the flow of knowledge can be purified, widespread, its content differs and can become more valuable and meaningful. The below figure illustrates these propositions in a simplistic manner, resembling the flow of waters that are mixing and thus changing versus those that are not mixing and remaining the same, as in the meeting point of Irtysh and Ulba rivers in Oskemen. A knowledge amphora that enables arbitration of heart can facilitate these cross-boundary interactions that impact knowledge flows. On the other side of the river bank, factories that pollute the environment, again as in Oskemen, can be seen as the manifestation of too much emphasis on (negative aspects of) will or reason.
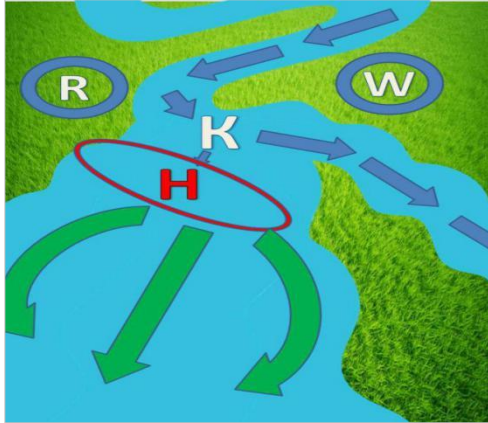

Figure 6. Representation of refractive knowledge amphora and arbitration of heart as in river flows

In order to utilize this refractive knowledge amphora, arbitration of heart is indeed needed, which may function as a membrane or seam that allows these cross-boundary interactions. Through such knowledge amphoras that facilitates arbitration of heart, cross-cultural interactions can be achieved, resulting in an open mind and new knowledge generation. In this way, we can overcome echo chambers in social media and enable a more fruitful knowledge sharing and effective communication. This Refractive Amphora that is benefiting from the Arbitration of Heart, in the future, can be applied to build not only intelligent, but also emotional systems by social media system designers in order to objectively support users to see all the different even competing perspectives of an opinion and let them choose themselves for their own sake, respecting privacy and ethical issues and constructs.

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