



Socio-Cultural Translation for Harmonizing Human Creativity and AI Inspiration: A Dynamic Design Thinking Process for Innovation Using a ChatGPT 3.5 Case Study

الترجمة الاجتماعية - الثقافية كوسيلة لأحداث التكامل بين الإبداع البشري وإلهام الذكاء الاصطناعي: نهج ديناميكي للتفكير
التصميمي والابتكار عبر دراسة حالة ChatGPT 3.5

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Article abstract:

This article highlights the critical role of translators as cultural mediators in the era of artificial intelligence and design thinking. How do Translators harmonize human creativity with AI? Serving as design mediators, translators are considered as bridges between designers, AI tools like ChatGPT, and global markets. Their involvement enhances innovation by ensuring socio-cultural feasibility and guiding AI responses for globally resonant designs. Positioned as cultural designers, translators foster collaboration, refine commands, and drive creativity in product development. This synergy between human ingenuity and AI capabilities enriches cross-cultural understanding, enabling impactful and innovative advancements for international markets.

Key words: AI Inspiration; ChatGPT3.5; Design Thinking; Innovation; Socio-cultural Translation.

ملخص المقال :

يسلط هذا المقال الضوء على الدور الجوهرى للمترجمين في عصر الذكاء الاصطناعي ويوضح كيف يمكن للمترجم أن يؤلف بين الإبداع البشري ومهارات الذكاء الاصطناعي لتحقيق تناغم فعال؟ يلعب المترجمون دورًا محوريًا كوسطاء بين المصممين وأدوات الذكاء الاصطناعي ChatGPT3.5، مما يضمن توافق الابتكارات مع السياقات الثقافية والاجتماعية للأسواق والعملاء. من خلال توجيه الذكاء الاصطناعي وتصميم الاستجابات بما يتماشى مع الاحتياجات العالمية، يعزز المترجم جودة المنتجات ورواجها في الأسواق الدولية كما يساهم في الإبداع والتفكير التصميمي فيكون بذلك حلقة مهمة في تطوير المنتجات المبتكرة وتسويقها. بفضل هذا التكامل بين الفكر البشري والتقنيات الحديثة، يزداد الفهم الثقافي المتبادل وتحقق إنجازات مؤثرة في مجال الابتكار العالمي لفائدة البشرية جمعاء. كلمات مفتاحية: الذكاء الاصطناعي؛ شاتجيبتي3.5؛ التفكير التصميمي؛ الابتكار؛ الترجمة الاجتماعية-الثقافية.

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Introduction

Technology, Innovation, Creativity, Artificial Intelligence, Design Thinking, and Assisted Translation are increasingly becoming integral components of our modern lexicon. However, at the core of all these concepts is the human being, with talent serving as the bedrock of creativity. Encouraging and developing talent involves mobilizing culture and tradition, establishing civilizational connections to augment the stock of human capital, enhancing its quality, and instilling values that foster achievement and initiative. The productivity that emerges from this talent, manifesting in the form of innovative ideas, can be significantly amplified by leveraging the translator's expertise to design these concepts using artificial intelligence. Translating creativity into tangible innovation is influenced by a multitude of incentives, and sustaining this innovation is inextricably linked to substantial investment in human talent. The journey from innovation to commercially viable ideas requires the collaborative efforts of numerous service providers and the entrepreneurial acumen of the translator. So, how does the translator contribute to the design thinking process with ChatGPT? And how can the translator steer the conversation between a human and AI to foster harmony and spark innovative ideas? This paper aims to illustrate how translators can harmonize human creativity with AI inspiration using a socio-cultural approach to refine commands and guide machine responses, and also explores how translators, the cultural mediators, can leverage tools like ChatGPT to innovate by understanding the machine's proposals and adjusting them to fit the social market where they will be implemented by ensuring the three key elements of the design thinking process: feasibility, viability, and desirability. Integrating these advanced technologies allows translators to transform creative ideas into groundbreaking innovations, demonstrating the pivotal role of human talent in the age of artificial intelligence. The discussion will focus on the interplay between human creativity and AI, highlighting the methodologies and strategies that can facilitate this synergy, ultimately contributing to a more dynamic and innovative future.

1. General concepts about Human Creativity, Innovation and AI Inspiration

1.1 Definition of Creativity:

Creativity is a concept that distinguishes the human being from all other creators, it is the spark that ignites the wellspring of imagination and inspiration. It's the capacity to think beyond the confines of convention, to forge new paths where none existed before: Creativity, as has been said, consists largely of rearranging what we know in order to find out what we do not know. Hence, to think creatively, we must be able to look afresh at what we normally take for granted. (Hughes, Lee, Tian, Newman, & Legood, 2018)

Creativity transcends disciplines, spanning from arts to science, and business to personal development. It is fundamentally a human endeavor that emerges precisely when needed to solve life's challenges and streamline both simple and complicated processes. Linda Naiman, indicates in her book "Creativity at work" that:

Whenever there is a crisis, there is also an opportunity. The question is, how do you discover opportunity in times of turbulence and chaos? Creativity gives you the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena and to generate solutions. (Naiman, 2024, p. 1)

Consequently, from the above definitions of 'Creativity,' we understand that it refers to a completely novel, original, and genuine brainchild that has never existed before. As the author Thomas Ditch (1974) eloquently stated that Creativeness is the ability to see relationships where none exist.

The closer a person feels to danger, the more his/her brain gives multiple suggestions, analyses them even they are paradoxical, and searches for immediate resolutions to face his problem. The more possibilities the subject can imagine, open or explore, the more creative he is. Divergent thinking is what scientists consider most creative. (George., Ainsworth-Land, & Georgeland, 1993)

1.2 Definition of Innovation:

Many students at our university incubator, as well as many others, often confuse 'Innovation' with 'Invention', leading to apprehension towards the term. However, invention, synonymous with creation, involves generating a genuinely new idea that did not exist before. On the other hand, innovation entails refining existing ideas by introducing new aspects to adapt to market demands and meet customer needs. For example, Alexander Graham Bell invented the telephone in 1876, but subsequent advancements and additions made to the original model up to 2024 represent innovations rather than inventions.

Innovation is a seed that we must implement in the young brains to develop their imaginative and ingenious abilities. Such a mindset is crucial, individuals should grow up with the vibrant imaginations that permit to dream and think creatively. To the individual levels of creativity and innovation, we “must move beyond the constraints of rigid policies, prescriptive processes, and fragmented organizational structures in education that stifle innovation”. (Vint, 2006)

Establishing an environment that nurtures fresh thinking and encourages ideation in educational settings necessitates embracing a mindset of continuous innovation throughout every stage of learning. This approach empowers individuals to cultivate and sustain creativity and leadership across all areas of their studies. Therefore, leadership is the purposes from Innovation and “If an innovation does not aim at leadership from the beginning, it is unlikely to be innovative enough.” (Drucker, 1998, p. 8)

In essence, the first step for both creativity and innovation begins with imagining different situations and potential solutions. Then, guided by existing facts, the mind will analyze which solution is most suitable. "Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world." (Naiman, 2024)

1.3 Definition of AI Inspiration:

Artificial Intelligence (AI) refers to the ability of a machine or computer system to perform tasks that typically require human intelligence. These tasks include understanding natural language, recognizing patterns, solving problems, and learning from experience. According to Russell and Norvig (2010), AI is “the study of agents that receive percepts from the environment and perform actions.” (Russell & Norvig, 2010) These agents aim to maximize their chances of success based on what they perceive and learn.

As Harika et al. (2022) note, AI “enhances human decision-making by simulating reasoning processes and expanding the ability to interpret complex data.” (J.Harika, P.Baleeshwar, K.Navya, & H.Shanmugasundaram, 2022)

However, AI is not inherently intelligent in a human sense; rather, it imitates intelligent behavior based on algorithms, data, and predefined rules. The value of AI in innovation lies in its potential to support human-centered design and creativity, not to replace it.

Consequently, AI inspiration refers to the process through which artificial intelligence tools such as language models (e.g., ChatGPT) provide stimuli, ideas, or perspectives that can initiate or enhance human creativity. Unlike human inspiration, which is often rooted in emotion, memory, or cultural stimuli, AI inspiration stems from vast data analysis, probabilistic pattern recognition, and user interaction.

According to Sreenivasan & Suresh (2024), the synergy between design thinking and artificial intelligence enables ‘new realms of creativity’ by leveraging AI's ability to rapidly generate and iterate ideas. Similarly, Böckle & Kouris (2023) emphasize that AI tools can ‘spark inspiration’ through their human-centered design approaches.

2. Overview of the Design Thinking Process

2.1 What is Design Thinking?

Design Thinking is an intrinsic human activity that has contributed to the development of civilization, the construction of societies, and the creation of markets. It is “an approach focused on the human being that is able to uncover through multidisciplinary, collaborative perspectives that render thoughts and processes tangible, paths that lead to innovative business solutions”. (Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 12)

Creativity and innovation are key concept of the design thinking. The latter is generally defined as “an analytic and creative process that engages a person in opportunities to experiment, create and prototype models, gather feedback, and redesign.” (Razzouk & Shute, 2012)

2.2 Design Thinking Stages:

Stanford University’s Hasso Plattner Institute of Design, commonly known as the d. school, is renowned for its pioneering approach to design thinking. Their design process has five phases: Empathize, Define, Ideate, Prototype, and Test. These stages are *not* always sequential. Teams often run them in parallel, out of order, and repeat them as needed. (Interaction Design Foundation, 2016)

Design Thinking: a Non-Linear Process

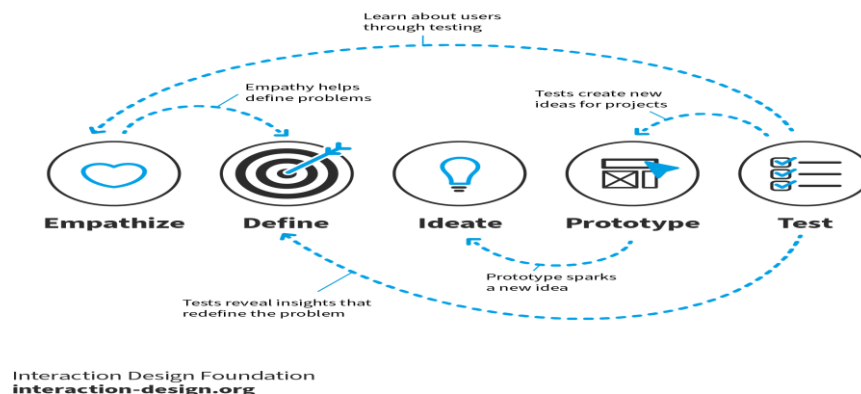


Figure1: Design Thinking Stages. Source (Interaction Design Foundation, 2016)

2.2.1 Empathizing

Empathizing is the first step in the Design Thinking process. It involves understanding the customer's needs by putting oneself in their position, experiencing their feelings, and asking the right questions to identifying the right solution for their problem. This approach fosters innovative ideas through keen observation without judgment. “When a Design Thinking project begins, usually the team is not familiar with the subject. Therefore, a Preliminary immersion is undertaken as a way of approaching the problem, often before the project kick-off.” (Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 24)

As an entrepreneur, finding an innovative idea often starts with observing personal daily life, family, friends, and neighbors to discover their problems. The closer a problem is to the individual, the more creatively and innovatively it can be addressed. For example, I noticed an elderly neighbor who never leaves his home. I asked myself why this man is always at home and found that he is disabled. With this information, I might consider designing a specialized wheelchair for him. However, to resolve the problem at its root, I need to dig deeper. I continued asking questions. Why is he disabled? Because he fell down the stairs. If I stop here, I might innovate electronic stairs. But why

did he fall? Because he is diabetic and didn't take his medicine on time. Why? Because he is alone at home. This led me to think about creating a home nursing service. This process is known as the 5 Whys technique, and it is beneficial for identifying the root problem.

2.2.2 Defining

Once the information has been accumulated, the designer should analyze the observations and synthesize them to define the core problems and point it clearly. This stage is called "problem statements". Personas may be created to help keep efforts human-centered." (**Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 24**) According to the previous example, I would define the neighbor's problem as loneliness. All the family members go to their jobs and school, and even the young children go to daycare, leaving the elderly man without companionship or a place to go.

2.2.3 Ideating

After gathering information through observation and defining the problem accurately, the designer prepares to "think outside the box." This involves brainstorming alternative perspectives on the problem and identifying innovative solutions. At this stage, the cultural environment plays a crucial role in finding an idea that will be accepted and welcomed by society. For our aforementioned problem, one possible solution could be a special home service for seniors or a senior daycare center.

2.2.4 Prototyping

This stage is known as the experimental phase, where it is crucial to transition from imagination to reality. As Linda Naiman attests: "If you have ideas, but don't act on them, you are imaginative but not creative." (**Naiman, 2024, p. 13**) The goal of design thinking at this stage is to test whether the idea is feasible, applicable, and reflective of the envisioned concept. Initially, prototypes can be inexpensive, scaled-down versions of the product to explore the ideas. These can be as simple as paper prototypes.

2.2.5 Testing

In the final phase, designers test the solutions and prototypes with real users to determine if they effectively address the problem. This testing can reveal new insights, prompting the team to refine the prototype or even revisit the Define stage to reassess the problem. These five phases of Design Thinking are various modes that collectively contribute to the design project, rather than being sequential steps. The objective is to thoroughly understand the users and develop their ideal solution or product.

2.3 Design Thinking Objectives:

Traditionally, design thinking relies on the designer's capacity to consider at the same time 1. human needs and new visions of living well, 2. available material and technical resources, and 3. the constraints and opportunities of a project or business. (**POMBO & TSCHIMMEL, 2005**) The Design Thinking process is regarded as "a system of overlapping spaces, in which viability refers to the business perspective of DT, desirability reflects the user's perspective, and feasibility encompasses the technology perspective." (**Chasanidou, Gasparini, & Lee, 2014, p. 27**)

Three Lenses of Design Thinking

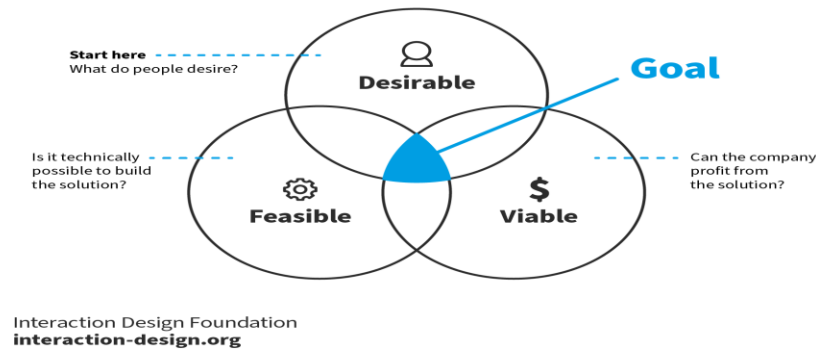


Figure2: Design Thinking Objectives. Source: (Interaction Design Foundation, 2016)

2.3.1 Desirability

A desirability test determines whether your solution is a "nice-to-have" or a "must-have" for your customers. The more essential your solution is, the higher its desirability in the market. To enhance desirability, you should view your product or service from the customers' perspective and put yourself in their shoes. If your solution effectively addresses their key pain points, it passes the desirability test. However, if significant pain points remain unaddressed, pivoting your solution may lead to better outcomes. The desirability test is conducted based on various cultural, civilizational, and economic factors. Consequently, the same innovative idea might be desirable in one market but not in another.

2.3.2 Feasibility

Once the innovator identifies one or more solutions, he must determine whether his idea (product or service) can be implemented. In theory, any solution is feasible if the innovator has infinite resources and time. However, markets and societies vary significantly, with differing legal, economic, and religious rules. What is applicable in one country may be forbidden in another. For example, while Bitcoin is a global trend, it is prohibited by the Algerian government due to legal restrictions, hindering its feasibility there. Technology also impacts feasibility. In countries lacking advanced technology, such as high-speed internet and blockchain infrastructure, innovators cannot propose ideas that rely heavily on these technologies. Weather and climate can be obstacles as well; for instance, hot temperatures can damage certain proteins and substances as low temperatures can affect the incubation of some cells in biology. Cultural and religious factors are crucial too. An idea not aligned with societal norms may face rejection. For example, Islamic teachings prohibit banks that charge interest. All these parameters should be thoroughly studied by the designer or innovator before pursuing his idea. Even if the idea is innovative and brilliant, it can only be profitable if accepted in the target market.

2.3.3 Viability

The final evaluation of the innovative idea focuses on assessing its value chain to ensure it is sustainable both now and in the future. This evaluation considers whether the business model aligns with customer preferences for using and paying for the solution. It also examines the profitability of the production process and supplier relationships. Viability goes beyond profit, taking into account the sustainability and societal contributions of the business. Having a product that is both desirable and technically feasible is not enough. The organization must be able to generate revenue and profits from it. This viability assessment is essential for commercial enterprises especially the startups.

3. Socio-cultural Translation in The Service of Innovation

Sociology, sociolinguistics, and cultural analysis are closely intertwined with translation. Throughout translation history, numerous books have explored the relationship between translation and these related fields, focusing on themes central to human experience. Examples include Eugene Nida's "The Socio-linguistics of Interlingual Communication" (1996), Maurice Pergnier's "Les Fondements sociolinguistiques de la traduction" (1980), Annie Brisset's "Sociocritique de la traduction" (1990), Jean-Marc Gouanvic's "Sociologie de la traduction" (1999), among many others.

The socio-cultural approach emphasizes the human aspect of translators, assigning them a highly active role in the communication process. According to this approach, translators can use their subjectivity to understand the context of the text and interpret its meaning based on their knowledge, experience, and impressions of the theme. Gideon Toury (1995) went some way toward analyzing a social subjectivity when he adopted the eminently sociological concept of norms, understood as regularities of behavior and hence of human actions, rather than just linguistic structures. (Pym, 2004, p. 2)

Culture, Religion, and Traditions strongly influence human actions, transforming them from routine to innovative. They stimulate creative interest, though the degree and forms of creativity vary between individuals and societies. If integrated into design thinking, socio-cultural translation can help identify the right problems, ask the right questions, and find adequate solutions. This approach is particularly valuable in the business world, where, "the focus has shifted from texts to mediators. Many of us are no longer stopping at the sociocultural dimensions of source and target texts. We would like to know more about who is doing the mediating, for whom, within what networks, and with what social effect". (Pym, 2004, p. 4)

We believe that translating into English will greatly enhance the innovation process, "since translation into English apparently brings benefits to all. Here the world of economic interests is not only very present, but it is viewed in a less prejudicial light: publishers seek new markets, the government seeks investments from wealthy expatriates, academics seek new job positions." (Pym, 2004, p. 11)

Kothari is keen to point out that individuals may have many other reasons for turning to translation (Pym, 2004, p. 11) Socio-cultural translation holds the quality of human capital and its enhanced creativity creates preconditions for innovation; however, catalyzing that innovation requires triggers and mechanisms that reinforce specific productive behaviors. One such mechanism is a culture that is relatively tolerant of risk-taking, particularly risks associated with entrepreneurial activity. This culture is also more accepting of entrepreneurial failure. Business failure is not stigmatized, and specific institutions, such as bankruptcy and limited liability, support this tolerance. (Shahid, 2009)

If we can achieve this tolerant culture through translation, we can discuss the concept of language universals. This idea, introduced by Anna Mauranen and Pekka Kujamäki in their 2004 work "Translation Universals: Do they exist?", shows that: "languages universals need to take into account several different kinds, including important tendencies shared by many languages, not only 'absolute' universals," (Mauranen & Kujamäki, 2004) or, as Greenberg (1966) put it in his classic 'Memorandum concerning language universals': "Language universals are by their very nature summary statements about characteristics or tendencies shared by all human speakers." (Greenberg, 1966) When humanity shares its social and cultural experiences through translation, it significantly promotes innovation and creativity.

4. The Role of Translators in Harmonizing Human Creativity and AI Inspiration

The translator serves as a mediator between languages, cultures, and civilizations. However, in modern life, the role of the translator has expanded. Technology and artificial intelligence have emerged as significant trends, with scholars from various fields striving to integrate these innovations

into different scientific domains. This paper aims to discover the captivated connection between translation, innovation, creativity and AI.

The terms "Innovation" and "Creativity," as mentioned in the previous section, are closely related to design thinking. In Design Thinking, "art is combined with science and technology to find new business solutions. Video, theater, visual displays, metaphors and music combine with statistics, spreadsheets, and management models to address the most intractable business problems and spark innovation." (Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 8) Specialized training in business and skill development equips translators with the tools needed for effective innovation.

Vermeer and Holz-Mänttari offered a unique perspective on translators, attributing them a highly active role in the communication process and a distinct social identity: "cf. Holz-Mänttari's insistence on expertise, or Vermeer's awareness of the historical position of translators and their capacity to negotiate with clients". (Pym, 2004, pp. 3-4)

The new role of the translator goes beyond merely transmitting texts or meanings. It involves negotiating with clients as a professional businessperson, leveraging their communicative skills in various languages and their open-mindedness, cultivated through exposure to different cultures and civilizations. Each foreign text is a new world for the translator to explore, and storytelling is the tool that the translator masters. Design thinking as well relies on the use of storytelling, one of the most frequently used visualization techniques, might improve the novelty and value of the ideas generated by helping decision makers to take in and hold onto the rich details of the lives of those for whom they seek to create value. (Liedtka, 2013)

Schoemaker (1993), also emphasizes the impact of narratives on Design Thinking. In his discussion on the effectiveness of scenario planning, presents the following proposition:

Comprehension of complex evidence relies on weaving intentional and causal accounts around strands of evidence that would otherwise seem disparate and hard to remember. The downplaying of probabilities is consistent with the focus on learning as opposed to problem solving and choice. (Schoemaker, 1993)

Design Thinking acknowledges that various factors can impact people's well-being, necessitating an examination of an individual's culture, context, personal experiences, and life processes to gain a comprehensive understanding. This broader perspective aids in identifying obstacles and developing effective solutions. By conducting thorough surveys, designers can accurately identify the root causes and effects of challenges, enabling them to devise more targeted solutions for their local market.

However, considering innovation for the international market, designers must also navigate diverse cultural norms and market dynamics to ensure their solutions resonate globally. Designer knows that "to identify the real problems and solve them most effectively, it is necessary to approach them from different perspectives and angles. Therefore it makes sense to favor collaborative efforts by multidisciplinary teams affording a diverse array of viewpoints, and a variety of interpretations on the subject at hand, which will yield innovative solutions. (Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 13)

Tschimmel (2012) also attested that: "Design, as a multidisciplinary field, took its methods and tools from several knowledge fields, such as from the arts, engineering, anthropology, psychology, etc. But most of the visually related tools, such as drawing, sketching, mapping, prototyping." (Tschimmel, 2012, p. 11) Accordingly, The multidisciplinary team should include a translator for his role as a crucial mediator who serves as a bridge between various disciplines, cultures, and psychological aspects. This specialized translator, equipped with a strong business background and proficiency in multiple languages, can effectively assume the role of designing innovative ideas tailored for international markets.

Traditionally, design thinking relies on the designer's capacity to consider at the same time 1. human needs and new visions of living well, 2. available material and technical resources, and 3. the

constrains and opportunities of a project or business. (POMBO & TSCHIMMEL, 2005) The translator can integrate these three factors by balancing analytical and empathetic abilities, rationality and emotionality, methodical planning and intuitive insights, while navigating both structured plans and spontaneous responses.

Another efficient technique used for innovation in Design Thinking during its initial step of empathizing, also known as immersion, is Cultural Probes:

Cultural probes are a way of obtaining information about people and their universe, used to collect data about users with minimal interference in their activities, or when the issue investigated unfolds intermittently or over an extended period of time. Instead of direct, in person observation, this technique allows users themselves to report on their own activities in the context of their day-to-day lives. This kind of information is useful in the Immersion phase.

(Maurício, Ysmar, Adler, Lucena, & Russo, 2013, p. 39)

The translator can utilize cultural probes as a tool to help the designer to understand the user's world, issues, aspirations, and expectations, without the need for the designer to meet him in person. The interpellation of the translator proves especially valuable when the designer is innovating for a foreign international market and lacks familiarity with the cultural, legal norms, and codes of the target society. It is also beneficial in scenarios where the designer is physically distant or where the subject matter is sensitive, and users feel more comfortable expressing themselves in their native language.

5. A Dynamic Design Thinking Process for Innovation Using a ChatGPT 3.5 Case Study

In our case study, we, as translators, decided to assist our Economics student in finding an innovative idea using ChatGPT 3.5 to start his startup business in Algeria. Our student, who speaks Arabic, aims to explore international trends for inspiration. We chose English as the research language because it is universal and widely used in the world of innovation. Below is the dialogue exchange between the student, the translator, and ChatGPT 3.5.

Student: Give me an innovative Idea.

ChatGPT3.5: How about an "Eco-Friendly Transportation Hub"?

Design a centralized transportation hub in urban areas that integrates various eco-friendly modes of transportation, such as electric bikes, scooters, electric cars, and even autonomous shuttles. The hub would serve as a one-stop destination for commuters to access different modes of transportation for their daily commute or short-distance travel within the city.

Student: I live in Algeria. Give me an innovative Idea.

Translator: Algeria is an Arab Muslim country.

ChatGPT3.5: Certainly! Here's an innovative idea tailored for Algeria:

"Online Halal Dairy and Wheat Product Subscription Service"

Develop an online platform that offers a subscription-based service for high-quality halal-certified dairy and wheat products, catering to the dietary preferences and cultural needs of Algerian consumers. The service would provide a convenient way for individuals and families to access a variety of dairy and wheat products, including milk, yogurt, cheese, butter, bread, and pastries, delivered directly to their doorstep on a recurring basis.

Translator: In Algeria, all products are halal by default without formal certification. Additionally, Algerians prefer shopping at supermarkets and are cautious about using online platforms.

ChatGPT3.5: "Smart Halal Supermarket Experience"

Concept: Introduce a concept of "Smart Halal Supermarkets" that combines the convenience of traditional brick-and-mortar stores with innovative technologies to enhance the shopping experience for Algerian consumers. These supermarkets would focus specifically on halal dairy and wheat products while integrating digital solutions to streamline operations, improve customer engagement, and build trust.

Student: What does it mean "brick-and-mortar"?

Translator: it is 'Kouchk'. Our traditional small shops where we used to demand the seller to give us things rather than choose them as we do in modern supermarkets.

Student: I'm seeking a novel idea. Algerians tend to avoid brick-and-mortar establishments, viewing them as outdated. Could you suggest an innovative concept for a restaurant?

Translator: In Algeria, two types of restaurants are popular: fast food and grill. Some restaurants include kids' spaces without supervision. While these establishments offer similar services, the quality of service varies. Algerian parents often bring their children along when dining out, which can make it challenging to enjoy their meal, especially if the children are noisy.

ChatGPT3.5: Considering the dining habits and challenges faced by Algerian parents, here's an innovative restaurant idea:

Introducing "Family Harmony Dining": A restaurant designed with separate dining areas for families and adults. The family section includes supervised kids' play areas with activities tailored to different age groups, allowing parents to relax and enjoy their meal. Meanwhile, the adult section offers a tranquil dining experience with sophisticated ambiance and attentive service. This setup ensures a harmonious dining experience for all patrons, addressing the needs of both families and adults seeking a peaceful meal.

Translator: However, even with a supervisor, if parents and children are in the same space, children may still approach their parents for various needs such as toys or attention, potentially disrupting the dining experience. Give another solution.

ChatGPT3.5: "Separate Dining Zones": Design the restaurant with distinct zones tailored to different age groups. Have a supervised kids' area with activities and entertainment designed to keep children engaged. Meanwhile, create an adult dining area where parents can enjoy their meal without disruptions. This separation helps to minimize disturbances and allows both parents and children to have a more enjoyable dining experience.

Translator: You mean a sort of Kids restaurant!

ChatGPT3.5: That's a creative concept! Establishing a restaurant exclusively for children where parents can safely leave their kids while they enjoy dining out is a unique and potentially valuable service. Here's how you could bring this idea to life: "Kids' Dine & Play Zone: A Parent-Friendly Restaurant Concept"

Concept: Create a family-friendly restaurant that features a dedicated Kids' Dine & Play Zone, where children can have a fun and engaging experience under the supervision of trained staff while their parents enjoy a meal in the main dining area. The restaurant aims to provide a safe, entertaining, and hassle-free dining environment for families, allowing parents to relax and socialize without worrying about their children.

Student: Thanks, I like the Idea.

ChatGPT 3.5: You're welcome! If you need further refinement or have more ideas to discuss,



feel free to ask. Happy to help!

6. Findings and Discussion

- 1- In addition to translating student commands from Arabic into English for ChatGPT 3.5, the translator consistently refines the students' requests. This refinement includes incorporating socio-cultural aspects into the conversation and providing additional insights about the local market environment, specifically focusing on the Algerian context.
- 2- ChatGPT 3.5 cannot generate innovative ideas independently, but it can be guided by the designer through dialogue to reach suitable innovative concepts.
- 3- ChatGPT 3.5 assists in developing the designer's ideas and opens new horizons for inspiration by leveraging data and information from internal market experiences within its algorithms.
- 4- The more the designer or translator provides ChatGPT 3.5 with cultural, religious, historical, and civilizational background and market segment information, the better it will generate ideas that meet the customers' needs in the target market.
- 5- A specialized translator in Business and Design Thinking can make ChatGPT 3.5 more empathetic. This means he can guide the AI to recognize and distinguish the diverse needs of different segments in various markets.
- 6- Innovation through ChatGPT 3.5 is easier and faster. Designers, translators, and ChatGPT 3.5 can collaborate in brainstorming sessions to develop innovative ideas. Our case study was completed in just a few minutes, and we found a truly innovative idea to implement in the Algerian market.

7. Conclusion

Based on the findings of our case study, it is evident that the translator plays a crucial role as a design mediator and harmonizer in the innovation process, effectively connecting human creativity with AI inspiration. Designers should recognize the translator's pivotal role in facilitating AI-driven innovation for global markets. They act as essential bridges linking designers, ChatGPT, and international customers. Their integral involvement in Design Thinking positions translators as cultural designers, significantly enhancing innovation and creativity. In conclusion, embracing translators in AI-driven design processes is essential for achieving culturally resonant and globally impactful innovations.

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