

# Developing Character Personas and Scenarios Vital Steps in Theatrical Performance and HCI Goal-Directed Design\*

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## ABSTRACT

In this paper, the works of theatrical performance practitioners are drawn upon to develop key points of conceptual convergence between the artistry of theatrical performance and the system of Human-Computer Interaction (HCI) known as Goal-Directed design (GDD). These findings are then framed within a supplemental instructional design that identifies an innovative method of developing personas and constructing goal-initiated scenarios that may, theoretically, improve upon Cooper's Goal-Directed design methodology.

## Categories and Subject Descriptors

H.5.2 [Information Interfaces and Presentation]: User Interfaces — evaluation/methodology, prototyping, user-centered design; I.2.11 [Distributed Artificial Intelligence]: Intelligent agents; J.5 [Arts and Humanities]: Performing arts; General Terms: Design, Experimentation, Human factors; Keywords: Creativity.

## INTRODUCTION

*To create a believable on-stage character, the actor must become the human being that is the character he is portraying ... must utilize a systematic method of gradually moving away from himself into another human individuality.*

*Constantin Stanaslavski, An Actor Prepares (1932)*

*Our scenario process has been described as very like method acting, in which the actor must inhabit*

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*the character, knowing what he knows and feeling his feelings.*

*Alan Cooper, The Inmates are Running the Asylum (1999)*

In the study of Human-Computer Interaction (HCI), among the prevailing theories of user-centred design testing are Clayton Lewis and John Reiman's "Task-Centred System Design" (TCSD), and Alan Cooper's "Goal-Directed Design" (GDD). Both methodologies are geared up to create efficient software that suit the users' needs, minimize frustration, and allow full pleasure and productivity from software and software-based products, be they computer applications or alarm clock gizmos. In the TCSD system, end-user profiles are based on real-world people doing their real-world tasks [11] whereas in GDD, "personas," who are not real people but rather hypothetical archetypes, are developed whose goals, rather than tasks, guide them through scenarios of interactivity events [7]. This GDD system bears an undeniable similarity to the creative process of character development used by actors and performance coaches when preparing for roles and dramatic scene interactions in the world of theatre art.

In his book, *The Inmates are Running the Asylum*, Alan Cooper introduces a cornerstone of GDD as being a "persona-driven design process" [7] whereby HCI projects, "get their own cast of characters from three to twelve unique personas that articulate the user population [7]." Despite the fact that Cooper stipulates "detail and precision" when articulating a persona's character attributes, his broad generalization of persona development falls short when it comes to useful procedures of actually "fleshing out" characters for believability and then moving them into a truthful interaction/improvisation with a software-based product. This could jeopardize the reliability of the results if used in a situation where the personas cannot be relied on to maintain a continuity of judgment and task completions, especially in light of Cooper's decision to use personas because "real people have funny quirks and behavioural anomalies that interfere with the design process."

In this paper the works of eminent theatrical performance practitioners are used to develop a theory of conceptual convergence between acting skills and Goal-Directed Human-Computer Interaction. The intention of this theory, in conjunction with a participatory creative workshop (see Instructional Design Appendix), is to supplement, and theoretically to improve upon, Alan Cooper's HCI Goal-Directed design methodology.

### POINTS OF CONCEPTUAL CONVERGENCE

How does the success of the two seemingly disparate endeavors of theatrical performance and Human-Computer Interaction Goal-Directed design (GDD) hinge on the believable "personas" or "characters" that engage in dynamic and empowering interactivity dialogues? Observing historical precedents from the world of acting and performance provides a perspective on several key principles that will subsequently be implemented into the four-module workshop curriculum model.

By examining the work and teachings of Constantin Stanislavski and his follower Lee Strasberg, a primary point of convergence between theatre art and GDD emerges; one that has a compelling affinity with the thesis of this paper — the practice of "transformation" that lies at the heart of character development and, as well, lays essential groundwork for scenario construction. Before delving into instructional techniques by which characters can be "fleshed out" of imaginary situations, it's worthwhile to review a few important highlights of Stanislavski's basic principles and Strasberg's extrapolation of these principles into his strategy of "Method Acting." Even though these famous actor-training techniques were developed for use as tools for the performers' trade, there is an ingenious crossover of practical application into the practice of Goal-Directed HCI design.

#### Stanislavski's "Imagination and Emotional Memory"

Constantin Stanislavski was an inspiring acting teacher and stage director who created a series of legendary theatrical productions at the Moscow Art Theatre in the early 20<sup>th</sup> century including Chekhov's *The Seagull*, *Uncle Vanya*, *The Cherry Orchard*, and *The Three Sisters*. A basic comprehension of Stanislavski's "Imagination and Emotional Memory" is pivotal in understanding the important role of "Internal Awareness" — a technique that was adopted by Lee Strasberg. Until Stanislavski's time (1890s) an assumed "external" performance motivation was de rigeur; a well-known example of this is Hamlet's speech to the actors that recommends an "external imitation" of behaviour:

*... Nor do not saw the air too much with your hand, thus, but use all gently; for in the very torrent, tempest, and (as I may say) whirlwind of your passion, you must acquire and beget a temperance that may give it smoothness. (Shakespeare, Hamlet. Act 3 Scene 2.)*

Stanislavski disapproves of this as "external obstacles (which) hamper actors' artistic genius compelling substitution of the crude outward mark of the actor's profession for its results" (Stanislavski, 1932). He, instead advocates a theatre of "imagination" where,

*... the creative imagination presents itself afresh, the indispensable gift of the actor. Without a well-developed, mobile imagination, creative faculty is by no means possible, not by instinct nor intuition nor the aid of external technique. In the acquiring of it, that which has lain dormant in the mind of the artist is, when immersed in his sphere of unconscious imagery and emotion, completely harmonized within him. (Stanislavski, 1932)*

Once the imagination is released, the actor can move toward complete believability. This "Emotional Memory" is the practice where a character is made real with the ultimate goal being the full embodiment of the character of a person who has been created in the imagination. When speaking of an actor who is progressing toward the realization of emotional memory, Stanislavski claims that,

*Only by a strongly developed sense of truth may he achieve a single inward beauty in which, unlike conventional theatrical gestures and poses, the true condition of the character is expressed on every one of his attitudes and outward gestures (Stanislavski, 1948).*

This is the process which Stanislavski scholars Irena and Igor Levin call "the actor's transformation." Interpreting this into the realm of Cooper's Goal-Directed design, this same cornerstone of performer believability could be at the basic heart of Cooper's claim that, when testing designs, he and his team like to "imagine ourselves as having his (the persona's) background instead" [7] — essentially transforming themselves into the lives of their imaginary characters.

#### Strasberg's "Method Acting"

Born in Ukraine in 1901, Lee Strasberg studied in Moscow under Constantin Stanislavski and eventually emigrated to the United States where he formed, with writer/actor Elia Kazan, the Actor's Studio in Manhattan. It was here that Strasberg pioneered the idea of Method Acting which is a system of training and rehearsal for actors which bases a performance upon inner emotional experience — a technique clearly brought over to America with him from Stanislavsky and the Moscow Art Theatre. Over the years he trained a talented roster of actors in method acting including Marlon Brando, Rod Steiger, Marilyn Monroe, Eli Wallach, Patricia Neal, Dustin Hoffman, and Robert DeNiro.

This is, no doubt, the “Method” that Alan Cooper acknowledges (as cited in the introduction of this paper) as being responsible for the persona development and scenario process that presumably allows the design team an insight into the full experiential impact of a persona’s use of a software-based product, in lieu of the more conventional real-user testing and task walkthroughs.

Why would Alan Cooper mention the Method Acting style of performance training as an apparent influence on his personal development strategy? A possible explanation is the widespread knowledge of the Method Acting style, due to the celebrity profile of its prominent graduates. Who doesn’t know Brando’s famous “Stella!” lament from the 1951 film version of Tennessee Williams’ *Streetcar Named Desire* and the stories of the labourious, painstaking motivational studies that Brando injected in the character of Stanley Kowalski? Strasberg’s notoriety as a celebrity star trainer earned him the kind of acclaim and popularity that put him in the mainstream of American popular culture, thereby imbuing his Method Acting into public awareness.

Strasberg himself declares, in the introduction of his book *A Dream of Passion*, that “the Method is really a continuation of and an addition to Stanislavski’s system in Russia.” However, he attributes the influence of other Stanislavki disciples such as Richard Boleslavsky and Maria Ouspenskya for several refinements, the most notable being a re-examination of the Aristotelian principle of “action.” Strasberg declares that “Action has always been *the* essential element in the theatre. The very word actor implies that. Every actor makes use of one or another kind of action.” This introduces us to the next point of convergence between theatre art and HCI — a sequencing of action events and the resulting cause and effect rhythm of scenario construction.

#### **Aristotelian Dynamic and Empowering Action Events**

Like actors in a play, software users set out on a sequential path to undertake a series of steps, or “action events,” to achieve an identifiable outcome or goal. To approach an explanation of this theory from Aristotle’s perspective, David Grote in his book *Script Analysis, Reading and Understanding the Playscript for Production*, refers to the Greek philosopher’s *Poetics*, written in around 325 B.C. Grote reminds us that according to Aristotle’s formulation,

*... dramatic work is “an imitation of an action which is complete and whole and has some magnitude” — complete when the audience knows all the factors that determined the action, and whole when it has a beginning, middle, and an end. ... The magnitude of the action should be such that the events of that action ‘are easy to remember’ (Grote, 1985).*

In contemporary terms, Grote reminds us that “a dramatic action is a complete sequence of events that has a definite beginning, middle, and end,” and that it includes more than one activity and exists through a period of time. He goes on to extrapolate Aristotle’s dramatic action events into the analogue of a chess game where “each step in the action occurs in response to something that has gone before and in hopes of producing another response that will occur later” [10]. Grote then refers to this as “dynamic” actions leading to “empowering” events.

This process of action/event sequencing coincides with Alan Cooper’s description of “scenarios.” Cooper says,

*We call our tool for incorporating tasks ‘scenarios,’ ... a concise description of a persona using a software-based product to achieve a goal. ... We play our personas through these scenarios, like actors reading a script, to test the validity of our design” (Cooper, 1999).*

Brenda Laurel, author of *Computers as Theatre*, also acknowledges the applicability of the Aristotelian paradigm to understand the interaction of characters, both human or computer origin, through paths of sequential action events. The gist of Laurel’s overall applicability of Aristotle’s *Poetics* is that software interface design, like effective dramatic scenarios, must engage the user directly in pleasurable cause and effect experiences. [13]

#### **Interaction and Improvisation with a Willing Partner**

By examining these two terms, “interaction” and “improvisation,” it’s entirely feasible to maneuver another point of entry into a convergence of the disciplines. A respectable description of “interaction,” as in human-computer interaction, from the TechWeb TechEncyclopedia is, “The back-and-forth dialog between the user and the computer” [24]. A trustworthy description of “improvisation,” offered by performance creativity expert Stephen Nachmanovitch, is

*We listen to each other; we mirror each other; we connect. A mysterious kind of information flows back and forth ... A releases B’s energy, B releases A’s energy. Information flows and multiplies easily” (Nachmonovitch, 1990).*

An important and provocative statement that both echoes and underlines Nachmanovitch’s dynamics of exchange and, in addition, inherently spans the distance between human-computer interaction and theatrical improvisation is contributed by Alan Cooper within his description of “polite software.” He says:

*Here is my list of what improves the quality of interaction, either with a human or a high-tech, software-based product ... Polite software is interested in me. ... is forthcoming ... anticipates my needs. ... is responsive. ... is perceptive ... stays*

*focused. ... gives instant gratification. ... is trustworthy" (Cooper, 1999).*

From the perspective of an experienced scene partner in spontaneous, unscripted performance work, I venture to declare that Alan Cooper has just described not only an intelligent, friendly interaction with a polite software, but an ideal set of playful attributes between willing improvisational scene partners.

### Conclusion

In conclusion, the points of convergence between that have been identified in this research are:

*From Constantin Stanislavski and Lee Strasberg* — Imagination and Emotional Memory as they relate to articulation of personas; *from Aristotle* — Dynamic and Empowering Action Events as they relate to scenario building; and *from Stephen Nachmanovich* — Willing Partnership of Interaction and Improvisation as they relate to polite software and artificial intelligence.

These empiric affiliations, as conjecturally integrated through the instructional design following as an appendix, can be seen as endowments of knowledge from the millennia-old artistry of the theatre to the fledgling practice of HCI Goal-Directed design.

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## INSTRUCTIONAL DESIGN APPENDIX

*Interaction designers at Cooper spend weeks of study and months of practice before we consider them to be capable of creating and using personas at a professional level. Many practicing designers have used the brief 25-page description of personas in Inmates as a "Persona How-to" manual, but a complete "How-to" on personas has yet to be written. (Alan Cooper, 2003).*

This instructional design connects the points of convergence, that have been identified in the previous section, to practical application. The overarching learning objective of this curriculum is to provide the pathways to allow practitioners or future practitioners of Goal-Directed design to tap into the valuable resources of theatrical performance to round out their training.

At its essence, this curriculum consists of four modules of learning:

- Context: The process of creating story narratives in which to involve the personas,

- Identification: A step-by-step approach to first-person character analysis,
- Action/Event Scenarios: Building dynamic and empowering visual representations of the activity flow, and
- "Stimulations:" Interaction and improvisation with a willing partner.

When implemented into a workshop situation, these modules could be offered as three lessons that would take about three to four hours each to complete with assignments spanning the process. Participants are asked to bring a journal to each session and to wear loose fitting clothing.

The three self-contained lesson plans use an inquiry-based learning formula of "BOPPP" — Bridge-in, Objective, Pre-test, Participation, and Post Test. The term "participant" is used throughout as a definition of a learner who may be a designer, a creative director, an engineer, or a programmer. "Software-Based Product" will be abbreviated throughout to "SobaPro" in order to personify and humanize the technology.

The venue in which the workshops are held would ideally be a space where full physical movement could be undertaken, including lying on the floor and free walking through the space — a small gym with mats would be adequate. Ideally, there will be no more than twelve participants.

### Module One: Context, Putting Characters into a Story

#### Learning Outcome

When the participant has completed this objective they will have produced a spontaneous story narrative in which all the character personas play a role.

#### Lesson Plan One

*Bridge In:* For purposes of releasing the participant's imagination, getting rid unnecessary tensions and increasing inner awareness, a 20-minute warmup should be facilitated that can include a combination of techniques common for actor preparation; for example general physical warmup, breath and vocal work and an improvisation game. (See [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html).)

*Objective:* Using Natalie Goldberg's "Wild Mind Rules of Writing Practice," the participant will write a spontaneous journal story<sup>1</sup> that features all the personas that need to be developed in a setting that includes a computer or software-based product that doesn't work right.

*Pre-Test:* The participants will be given a short set of questions that result in a release from the "hard grip of the editor." They'll be introduced to the "editor" as being "The Enemy Within," — core negative beliefs that can block people from being successful, prolific creative thinkers [5]. In terms of interface design, the inner critic and fear of "can we actually write a program to do this" can be an obstacles.

### *Participation:*

Commentary: The “Wild Mind” Rules of Writing Practice

Sample instructional pedagogy:

“In the theatre, performers who are taking on character personas are usually presented with a narrative story all ready for them as verbal text. Our learning curve is a little steeper, we have to create our own story context. But with Wild Mind on our side, we’re up to the task.”

As the Wild Mind rules are distributed, read out and briefly discussed, the participant writes the key points in their journal. The key points of Wild Mind are: Keep your hand moving, Lose Control, Be specific, Don’t think, Don’t worry about punctuation, spelling, or grammar, You are free to write the worst stuff in the world, and Go for the jugular. [9] (*See Wild Mind at [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html)*)

**Experience:** To practice “Wild Mind” technique, participants will be set loose with their pen and journal to write spontaneous thoughts for five minutes regarding their feelings about the warmup exercises. This will not be handed in, it’s just for them.

**Assignment:** Participants are assigned an imagination exercise with a rich legacy of “fear and loathing.”

Sample instruction pedagogy:

“Gonzo journalism was a term coined by Hunter S. Thompson, stringer for the ’60s *Rolling Stone* magazine and writer of *Fear and Loathing in Las Vegas/at the SuperBowl*. Legend has it that as the deadline approached, and with his article still not done, Dr. Thompson resorted to ripping pages out of his notebook and sending them to the magazine editors. *You* are a Gonzo journalist. You’ve stumbled on a fascinating situation and you need to quickly pitch the story to your magazin’editor. You need to produce a three-page Wild Mind story pitch in your journal on deadline — 45-minutes from now.”

The situation’s conflict involves “SobaPro” a computer or software-based product that doesn’t work right.

Within this situation exist four people, one who needs to deal with SobaPro every day (the protagonist), two who have special-case needs with SobaPro, and one person who doesn’t want to deal with SobaPro at all.

The story has a beginning, a middle, and an end, is written in the present tense, first person, and may well start out with “The situation is this,” or Here’s the scoop,” or “Do I have a story for you ...” with a liberal peppering of “and then I see” if the Wild Mind needs a boost.

The more the people talk or interact with each other as well as with SobaPro, the easier it will be to eventually flesh them out. The journalist, however, is just an observer.

**Skill Demo:** A reading of the Gonzo ballpark story. (*See Ballpark at [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html)*.)

**Experience and Partner Work:** At this point, each participant will be encouraged to take a break and then either come back into the space or disappear on their own for a period of 30 minutes of wild mind journal writing. At “deadline time,” whether the person is completely finished the writing or not, participants will partner up for an exercise called “The Big Ear.” This is where the participants sit back to back against each other, close their eyes, and take turns telling their stories to each other. The big ear may ask questions as the story is told. The storyteller is then given five minutes or so to write any new ideas they had into their journal. This will be titled “Second Impressions.”

**Generalizations:** A discussion will be facilitated where participants talk about their experiences of the day and how their stories changed as a result of re-telling it and what it felt like to be a listener.

### *Post Test and Assignment:*

After participants answer a few questions that gauge the level of learning success of this first lesson, they will be given an assignment to incorporate the “Big Ear Second Impressions” notes into the “Wild Mind Gonzo Story,” incorporating character interactions into a few lines of actual script dialogue. They may also want to imagine their characters when they have a few relaxed moments — especially the journalist and main story protagonist. Participants can ask themselves, “What can I draw upon from my own life experience to feel how this person feels?”

## **Module Two: Character Study and Transformation**

### *Learning Outcome:*

When the participant has completed this objective they will have a written a character study for their main persona and developed a sense of how it feels to transform into that person

### *Lesson Plan Two*

**Bridge In:** Once again, a 20-minute physical warmup will be facilitated that includes, for this lesson especially, gentle yoga work that culminates in a creative rest period on the floor. After focusing the “excited mind” through breath work, and being reminded of the evils of “the editor,” the participant will be lead through emotional memory and internal awareness exercises — drawing upon their own life experience to transform into the character of the journalist (which is really an exploration of “self,”) and then into the character of the protagonist (an exploration of “imaginary emotional memory”).

**Objective:** Using a variation of Uta Hagen’s character history building exercise, the participant will write a character study and begin to experience the truth of this life.

*Pre-Test:* The participants will be questioned about their emotion memory experiences as perceived in both the homework and in the warmup.

**Participation:**

*Commentary:* The “History-Building Character Study”

Sample instructional pedagogy:

“The amazing results that are produced from this method of fleshing out fully formed and truthful characters lies at the heart of this entire workshop. This will allow a precise description of your persona and what they wish to accomplish. The key to the predictability of its success lies in writing the description in the first person, present tense, i.e. “My name is Mary and I am 28 years old.”

*Exercise:* Participants will write these following questions in their journals (and they will be written on a board):

- Who am I? What’s my name and how old am I?
- What’s my job? What’s my education? What am I wearing?
- What time is it? The year, the season, the day, the hour, the minute.
- Where am I? The country, city, neighbourhood, house, room, area of the room?
- What surrounds me, animate and inanimate.
- How do I feel about SobaPro and how do I relate to it?
- What’s in my way? What are my obstacles? (Amid this list will probably appear SobaPro.)
- What do I want? What are my immediate and long-term objectives?
- What do I do to get what I want? What are my actions?
- What has just happened (before this story), what is happening, and what do I expect will happen (after the story)? [12].

*Demonstration of Skill:* A reading of a sample ten-step character study in the first person. (See *Mary’s character study* [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html).)

*Experience and Group Work:* As in lesson one, the participants will be encouraged to take a break and then either come back into the space or disappear on their own for a period of 30 minutes of Wild Mind journal writing as if their protagonist character is answering the ten-step character analysis questions.

Once they have come back into the room with their descriptions, they take a walk in the space and get into the character in their minds. Facilitator’s coaching questions will be, for example, “Have you discovered your character’s walk? Have you found the voice a little? Do you know the dreams? Do you know their fears? [9]. One by one they get “hotseated” where they go into character, step onto a

platform in the middle of the space and answer questions that other group members ask as they continue walking through space. Who are you? What is your name,” and so on.

*Generalizations and partner work:* Participants discuss their experiences with a partner and then spend another few minutes writing a “Second Impressions” entry into their journal.

**Post Test and Assignment**

After participants answer a few questions that gauge the level of learning success of this first lesson, they will be given an assignment to incorporate the “second impression” notes into the “history building” character study and to flesh out their other characters in their story using Wild Mind history building. They will also be given handouts of Julia Cameron’s *Your Enemy Within*, [5] and the first few scenes of Neil Simon’s *The Odd Couple* [20] to read and loosely relate to the action of their own stories. (See *Enemy Within* at [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html).)

**Module Three — Action/Event Scenarios and Improvisation with a Willing Partner**

Unlike the other two lessons, this learning module is in two parts.

**Learning Outcome:**

When the participant has completed the objectives of Mini Lesson Plan A and Mini Lesson Plan B, they will have a drafted an action chart scenario with dynamic and empowering events, and will have interacted with SobaPro the Artificial Intelligence (AI).

**Lesson Plan Three A — Action Event Scenarios**

*Bridge In:* Participants will be lead through a brief walking-based actor preparation warmup along with some simple breath and yoga work.

*Objective:* Using Aristotelian principles of dramatic action sequencing, the participant will draft up a flowchart for their personas with dynamic and empowering events.

*Pre-Test:* The participants will be asked a few questions about their readings from the previous lesson.

**Participation:**

Commentary — “Cause and Effect Action Charts” [10].

Sample instruction pedagogy:

“Here is an example of where theatre and good software product development diverge somewhat. In theatre, we thrive on conflict. According to conventional dramatic structure the climax of the play always follows a period of conflict and this is how it is charted in terms of dynamic and empowering events.”

An example of an Action Chart for *The Odd Couple* will be shown. Then an example of Action Charting as with cranky, negative SobaPro; the Gonzo ballpark curmudgeon. (See *Ballpark* at [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html).)

Sample instruction pedagogy:

“We don’t want conflict in a cause and effect continuum with SobaPro. We want equitable, democratic, and elastic actions where the dynamic events always result in happy empowering events culminating in the satisfaction of our goals. By looking at dynamic events as being interface-level commands and empowering events as journeys through the navigation flow, we can create for ourselves a voyage towards “freedom” because when it boils right down to it, whose goal doesn’t tie in with “freedom” – being free from the burden of the workload, (‘Yea, I don’t have to crunch numbers with SobaPro, I can go for a beer’); or being free from the stress of paying the airport tax, (‘Yea, SobaPro took my money in one gulp, now I won’t miss my flight’); or in the case of the baseball story, being free to keep playing, (‘Yea, SobaPro won’t bean me on the head again’)?”

An example will be shown of an “Elastic” navigation flowchart for SobaPro the ballpark hero where each journey ends in “freedom” or a journey that the user makes to attain their goals.

*Exercise:* Using coloured pens, participants will scribble a wild mind navigation flowchart on a huge sheet of paper that, more or less, represents dynamic and empowering action events leading the protagonist persona on a journey to freedom. This “giant cocktail napkin” iteration may be labeled something like “SobaPro’s Gift.” Participants might be encouraged to imagine that they’ve indulged in a martini or two.

*Discussion and Generalization:* Participants can stroll around to look at the big freedom journey maps and discuss them with each other.

### **Lesson Plan Three (B):Willing Partnership of Interaction**

*Bridge In:* Participants will be loosened up with music to groove and move by, followed by suggestions of other activities or games they might like to do again. Then game of beanbags will be played, first in big groups and then in twos. This game sharpens the senses to “give and take” interactivity. (See *Beanbag* at [www.sundialmedia.com/papers/appendix.html](http://www.sundialmedia.com/papers/appendix.html).)

*Objective:* Using the technique of theatrical improvisation, participants will enact an imaginary “simulation stimulation” scenario with an artificial intelligence (AI).

*Pre-Test:* The participants will be asked a few questions about artificial intelligence in machines.

*Participation:*

Commentary — “Bringing SobaPro to Life”

Sample instruction pedagogy:

“In Cooper’s book *Inmates*, he says that it is common for a programmer to describe the actions of the computer in the first person; to say “I access the database, then I store the records in my cache” [7]. We will take this one step further and involve our protagonist personas, who will call themselves “I,” in the first person, into a “stimulation” with a software-based product personification, SobaPro who refers also refers to itself as “I,” in the first person.”

*Exercise and partner work* — In the same partner pairings that were set up in for the Beanbag game, partner one, the “user persona” will sit and read their Gonzo journal stories to familiarize participant two with the situation and the personality of the “cranky SobaPro.” The partners then get up on their feet and toss the beanbag back and forth to each other as they move through a “stimulation” of a human to computer interaction. The “user” persona assumes the character of the story protagonist and tosses dynamic event requests to SobaPro who, instead of being cranky, assumes a polite attitude of “Yes ... and.” This empowers the action forward and makes the interaction “elastic,” that is, it adapts itself according to the requests of the users. The goal is to reach freedom — a state where goals are fulfilled as identified in the previous “giant cocktail napkin” exercise. As they proceed through this “stimulation,” the challenge is to keep the beanbag up in the air. If it falls, it just gets picked up again right away and put back into action. They then change roles and go over this same exercise with the other partner.

*Generalization* — When finished, the partners will sit and discuss the interactions with partners. They will be asked to pay special attention to how SobaPro’s “elasticity” factors into the improvisational story flow. There are many right answers that may emerge from this dialogue, for example “lateral” or sideways moves that occurred because of good ideas that SobaPro had. The partners will be encouraged to re-enact certain key dialogue moments and discuss what would have happened if SobaPro had blocked the action (said “no” like the cranky SobaPro) or shelved the action (said yes... but). Even though “yes ... and” behaviour moves smoothly and happily toward freedom, could “yes ... but” interaction also provide valuable checks and balances? They will then spend five minutes journaling the observations.

*Post test:* This will be a general discussion about the findings of the course and how participants have achieved their own stated objectives of believable personas, efficient scenario action flow, and polite Goal-Directed design.

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### Appendix Note on Hypothetical Uses of this Knowledge

What other applications might there be for fully fleshed-out imaginary character personas? As well as being useful as software-based product testers there are, conjecturally, other “job descriptions” for these personas within the environment of a professional interactive consulting and design company. In the instructional training modules, the cast of personas get put to work designing software-based product interactivity, but these same personas could, in theory, take a metaphorical walk down the hall to the advertising and marketing department and be implemented as “target market representatives,” or “demographic case studies,” or even serve as models for the ad agency casting agents. We know how they think, how old they are, what’s in their way, and what course of action they take in order to get what they need, among many other details. We know how they would dialogue with the product and we even have journal stories about their lives that might make great creative advertising concepts.

Possibly the most compelling vestigial use of the cast of personas is in computer game design where a primary selling feature for many games is the believability of the character avatars. Evolving on-screen game personas through a theatrically inspired creative process of imagination, emotional memory, interaction, and improvisation might provide the key to actualizing characters who are truthfully convivial and challenging for human gamers.

In 1991, Brenda Laurel argued for the invisibility of the computer rather than its personification declaring computers to be a “representational medium of a visual world or system” [13]. “SobaPro,” the “Software-based Product” character birthed in the narrative development module of the curricula, challenges this theory. Step-by-step through the instructional design, SobaPro makes an unconditional character arch journey from cranky to “politely elastic,” expressing something more than just an invisible representational system. SobaPro epitomizes a 21<sup>st</sup>-century imaginary artistic model of artificial intelligence who offers to imbue software based products, be they computers, game dissemination system, or alarm clock gizmos with a kind of enlightened politeness that, as Alan Cooper requests, suits users’ needs, minimizes frustration and facilitates full pleasure and productivity.

### Appendix Note on Intellectual Property Rights

A major reason that this instructional design has not, to this point, been implemented is because of respect for Alan Cooper’s intellectual property rights — “Goal-Directed Design” (GDD) is a registered trademark of his company, “Cooper.” Authorization has recently been received from Alan Cooper who said

*You have done a remarkable job of teasing out new aspects of interaction design. It has always been my hope that someone would see the remark-*

*able similarities between acting and Goal-Directed design and compare and contrast them. (Alan Cooper, personal communication)*

Consequently, plans are in place to facilitate this workshop with groups of new media design students and/or computer science students in a University undergraduate environment. This activity will allow a transition from an axiomatic to an evidential confirmation of the value of this instructional material.

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\* "Goal-Directed design" is a trademark of "Cooper;" Founder and Chairman, Alan Cooper.