



SHARPENS YOUR THINKING

## Representing older people: towards meaningful images of the user in design scenarios

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# Representing Older People: Towards Meaningful Images of the User in Design Scenarios

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**Abstract:** Designing for older people requires the consideration of a range of design problems, which may be related to difficult and sometimes highly personal matters. Issues such as fear, loneliness, dependency, and physical decline may be hard to observe or discuss in interviews. Pastiche scenarios and pastiche personae are techniques that employ characters to create a space for the discussion of new technological developments and user experience. This paper argues that the use of fictional characters can help to overcome restrictive notions of older people by disrupting designers' prior assumptions.

In this paper, we reflect on our experiences using pastiche techniques in two separate technology design projects that sought to address the needs of older people. In the first pastiche scenarios were developed by the designers of the system and used as discussion documents with users. In the second pastiche personae were used by groups of users themselves to generate scenarios which were scribed for later use by the design team. We explore how the use of fictional characters and settings can generate new ideas and undercut the potential in scenarios, for weak characterisation of 'the user' to permit scenario writers to fit characters to technology rather than vice versa.

To assist in future development of pastiche techniques in designing for older people, we provide an array of fictional older characters drawn from literary and popular culture.

*Keywords: Pastiche scenarios, pastiche personae, experience centred design, conceptual design, participatory design*

## 1 Introduction: Representations of Older People

Marge: Grandpa, are you sitting on the apple pie?

Grandpa: I sure hope so...

[65]

Grandpa: Are we there yet?

Homer: No.

Grandpa: Are we there yet?

Homer: No.

Grandpa: Are we there yet?

Homer: No.

Grandpa: .....Where are we going?

[66]

Homer: Maybe it's time we put grandpa in a home.

Lisa: You already put him in a home.

Bart: Maybe it's time to put him in one where he can't get out.

[67]

Abraham Simpson is variously depicted as incontinent, senile and an unwanted burden on his family. In a flashback, Homer makes a touching speech to his father: "Dad, first you gave me life, then you gave me a home for my family, I'd be honoured if you came to live with us". Bart asks how long it was before they shipped him off to the old folk's home, Homer says: "about three weeks" and the entire family, including Marge, who is usually the moral centre of the show, laughs uproariously [68]. Grandpa finds himself consigned to the Springfield Retirement Castle. Here, isolated

and drugged, older people wait forlornly in the hope of a visit from their grandchildren, or anyone's grandchildren. The nursing staff's stock response to their problems is an increase in medication. This is perhaps one of the most sustained and bleak critiques of the cruelty and indifference shown towards older people in western society. But it refuses to sentimentalise and Grandpa is frequently depicted as deeply unsympathetic; he tells boring stories that "don't go anywhere", he lies about his past and complains constantly.

Grandpa Simpson is alienated not just from his family but from his culture "I used to be "with it". But then they changed what "it" was. Now what I'm with isn't "it", and what's "it" seems scary and weird. It'll happen to YOU!" [69]. He tells Homer that "it's rotten being old, because no one listens to you". Homer responds "I'm a white male, age 18 to 49. Everyone listens to me, no matter how dumb my suggestions are" [Ibid]. The market driven culture in which Grandpa lives has little interest in appealing to him now that he cannot afford the products it is trying to sell. His alienation is physical and biological, as well as social: "I used to get by on my looks. Now they're gone, withered away like a piece of fruit" [68]. He embodies aspects of the human condition which, as he is only too aware, younger people do not want to think about "Why are you people avoiding me? Does my withered face remind you of the grim spectre of death?" [69]. The character's personality and circumstances explicitly address some of the most disturbing aspects of ageing in societies that fetishise youth.

Discomfort with old age is evident in the dearth of acceptable terms for it. In this paper, we employ the term "older people" which is current in UK government literature. It replaces terms like "the elderly", which in turn replaced "pensioners". It seems likely that the term "older people" will be replaced shortly as it begs the question – older than what? The official answer is older than sixty but many a sprightly sixty year old would object to this. In North America the term "elders" has some currency, connoting as it does wisdom and sagacity. The meaning of words however cannot be fixed. While one term may be preferred over another because it connotes positive images, once current, these connotations cannot be guaranteed and the process of finding another euphemism may begin once more. The representation of old age is problematic not just in media imagery, but also in everyday language. In this paper, we examine pastiche as a means of representing older people in the design process. Pastiche is a form of writing that mimics existing style, characters,

scenes and situations to place them in new contexts. Pastiche scenarios [10] borrow from fiction and popular culture to open up a space for dialogue between designers and users. A related use of pastiche draws on fictional characters in collaborative scenario writing workshops with end users [28, 47]. Pastiche techniques offer a space where personal and upsetting issues can be discussed in a distanced and safe way. It may be easier, for example, to talk about Abe Simpson's incontinence than to talk about our own, or our mother's. And of course it is not only the Simpsons that discuss some of the more difficult, unseen and upsetting problems of ageing.

We have previously described the detail of these pastiche techniques elsewhere [13, 28]. In this paper, we reflect on our experiences of using these techniques in designing for older people. We examine some of the consequences arising from differences in the specific techniques and we explore how the techniques operate to undermine rhetorical devices within scenarios that may attempt to fit characters to technology rather than vice versa.

## **1.1 Representation in Design**

As society ages and the care gap increases, technology is envisaged as a means of allowing older people to live independently for longer [25]. This presents designers with an incredibly complex and difficult set of challenges. Gathering requirements and identifying problems in the home is difficult per se. It becomes even more complex when the target users are older people with varying degrees of physical and mental ability. Traditionally, design in Human Computer Interaction (HCI) has been informed by ethnographic observations and interviews. This was relatively easy to organise and straightforward to execute when the principle task domain was the workplace and the main target users were employees. Ethnographies and interviews are much more difficult in the home with older people.

Increasingly computing technology is being used to address problems like wandering at night, falls in bathrooms and social isolation. Not only is observation difficult in areas like the bathroom but interviews about things like personal hygiene can also be upsetting and of limited value. Occupational Therapists who make visits to older people living independently to assess their needs have developed techniques for asking difficult questions. They employ subtle observational methods (for example asking for a cup of tea) that can reveal an older person's actual abilities as opposed to their own perception of those abilities [12]. However, this kind of assessment is very

different to the kind of observations useful for exploring the potential of emerging technologies. This paper argues that pastiche scenarios can open up a space for an experience centred discussion of the needs of older people.

## 1.2 Structure of the Paper

The next section outlines different ways in which scenarios can be created and applied using pastiche. It compares experiences using designer authored pastiche scenarios, with collaborative workshops where end-users use pastiche personae to develop their own scenarios. Section 3 compares some scenarios developed by these different approaches and examines the differences between the texts created. Section 4 positions the technique in relation to similar methods in HCI, indicates when the use of pastiche is appropriate, suggests how appropriate characters can be selected, and provides an array of characters that might be drawn upon as a resource in designing for older people. Section 5 presents some concluding remarks regarding the challenge of developing meaningful images of older users in design scenarios.

## 2 Using Pastiche in Scenarios

### 2.1 Scenarios in HCI

Scenarios are an established technique to engage users or user representatives in interactive systems design. Scenario based design is now a part of many HCI curricula and a range of HCI textbooks provide guidelines on their use [e.g., 36, 24, 19, 56]. A longitudinal study of practising software engineers found that scenarios were commonly used, but that their deployment was opportunistic rather than systematic [44]. When other activities yielded better results, scenario generation ceased (Ibid). A key strength of scenarios is the ease with which users can make sense of them in relation to their own settings, allowing designers and users to imagine and respond to the concepts suggested.

As Alexander & Maiden [2] demonstrate, the term scenario can refer to many different techniques that vary in their purpose, their contents, their form and their relation to the systems lifecycle. In terms of their purpose, Rosson & Carroll [59] distinguish between *problem scenarios*, which describe interactions in or with existing systems, from scenarios used in the design stage to envision possible future systems. In terms of content, they distinguish between *activity scenarios* that describe the

general activities that a user might undertake with the support of a new system, from *interaction scenarios* that includes details of how the user-interface system might behave [Ibid]. All the scenarios we discuss are in the form of text. The pastiche techniques that we discuss in this paper have primarily been used to create activity scenarios to envision future systems during the conceptual design stages of systems development. Alexander & Maiden [2] refer to this stage of the systems lifecycle as ‘requirements discovery’, however, we prefer the term ‘conceptual design’ which highlights the need for creativity in identifying new uses of technology, and avoids the implication that ‘requirements’ are pre-existing independent entities that designers must search for and ‘discover’.

A further distinction raised by Alexander & Maiden [Ibid] is between scenarios where the content is stated at the ‘instance’ level, i.e., describing a particular interaction between a specific individual person and a proposed system, and content stated at the ‘abstract’ level, where the person and the events are represented generically. In interaction design, the concern to pay attention to specific details of person and place is a long standing tradition [5]. Cooper [24] advocates the use of ‘personae’ as a means of presenting the rich complexity of individual characters in design processes. In recent years, it has been argued that personae in some scenarios are little more than a name, profession and age bracket; they are not presented as complex, contradictory people with distinctive personal characteristics [54]. The abstraction away from distinctive individuals runs the risk that designers will create scenarios using simplistic stereotypes. This critique is particularly salient with regard to older people, because western society in general has difficulty representing the aged [43]. The techniques we discuss below populate scenarios with specific characters from fiction that can challenge initial notions of the user and lead to new insights and challenges.

## **2.2 Two Distinct Pastiche Techniques**

In the initial use of pastiche scenarios [10, 11] the scenarios were developed by the interaction designers. They were then used as a basis for design discussions with users and other stakeholders in the designing of “Net Neighbours”, an on-line shopping scheme where volunteers place on-line grocery orders on behalf of housebound elderly people. They have been used in similar ways in further projects [14, 15] and are currently being developed for the “My Exhibition” project based at the Leeds

Royal Armouries museum. Dearden & colleagues [28, 47] explored a different approach in which the design team seeded participatory design workshops with initial pastiche scenarios, but then encouraged user representatives to create their own. Facilitators suggested characters to use in the scenarios and possible settings for the technology under discussion (a smartcard system) by selecting one pre-printed card from each of two piles. Groups of 3 to 5 users then worked with a facilitator to develop their own scenarios featuring the selected character. This project was concerned with designing access to local e-government services.

An important distinction is that, with the first technique, where the design team produce the scenario in advance, the authors can also appropriate the setting and the literary style of the original text. In contrast, the collaborative approach makes it difficult to do more than simply use the character from the original. Therefore, in this paper we distinguish the two techniques as 'pastiche scenarios' and 'pastiche personae'. In either case, the character is used to explore their responses to situations dealing with proposed new technologies.

In the rest of this paper, we compare and contrast our experiences with these two techniques, in order to develop a deeper understanding of their effective application.

## 2.3 Generating Design Concepts

Pastiche techniques allow design stakeholders to explore alternative understandings of how different people might respond to proposed technologies. This can result in the generation of new design concepts, and the identification of potential difficulties with existing design proposals. For example, in designing the “Net Neighbours” online shopping scheme [11] Dickens’ Ebenezer Scrooge was considered as a potential client. The logic of the character suggested a number of potential problems, in particular the possibility of clients defrauding the scheme. This led to a further scenario where potential clients were required to make an initial deposit. This was again written as a pastiche of *A Christmas Carol*: Bob Cratchit tries to sign a relative up for the scheme but the cost of the deposit proves prohibitive (this scenario is considered in more detail in section 3.1). In this instance then the use of pastiche not only suggested a new configuration of the system (the use of the deposit) but also resulted in a decision about the final design (not to use a deposit so as to avoid excluding people).



Similarly, workshops using pastiche personae can lead to new design concepts or can highlight problems with existing proposals. Dearden et al. [28] describe a scenario in which Victor Meldrew (a character from the UK sitcom ‘One foot in the grave’) visits his general practitioner and then goes to the pharmacy to collect prescription drugs. The early part of the scenario raises issues about the access to personal medical data held on Victor’s smartcard, that might be available to medical centre receptionists and pharmacists, as well as to the doctor. Later, as Victor parks in the high street close to the pharmacy, the participants suggested the need for an interface so that Victor could use his smartcard to operate a traditional parking meter. Victor Meldrew is best known for his quick temper and impatience indicated by his exasperated “I don’t believe it!” catchphrase. The design concept followed from the participants desire not to arouse Victor’s temper by making parking difficult.

Pastiche scenarios can be discussed and analysed either within a participatory workshop, or later by designers, to identify specific design issues or problems. Dearden et al. [Ibid] illustrate how the issues identified can be recorded by annotating the scenarios with footnotes. This annotation approach is similar to, and could be integrated with, existing scenario based approaches to software design [e.g., 9, 59].

## **2.4 Engaging Users to Explore Complex Issues**

As well as enabling designers and users to generate a range of scenarios easily, pastiche techniques offer some important benefits for exploring particular design issues. Drawing on fiction allows scenario authors to extend beyond stereotypes of particular sectors of society. As well as offering a pool of characters to illustrate such examples, the use of pastiche can create a vivid story. This is can be valuable in engaging busy staff or other stakeholders in designing [11]. It is widely recognised in participatory design that many users and stakeholders find it difficult to find time to participate fully. Dearden et al. [28] and Lauener et al. [47] report that all the participants appeared to enjoy the activity.

## **2.5 Exploring Emotional Responses to Technology**

Increasingly, HCI is concerned not just with usability, but with more holistic conceptions of user experience [e.g., 38, 26, 48, 55]. As technology becomes integral to almost every aspect of daily life, it is important to put “felt life” at the centre of HCI [48]. The novel is one of the richest forms available to represent human

experience, and it opens up in ways not possible in other media, the emotional or “felt life” of characters. This can be particularly useful when considering technology as experience [74]. Richly imagined characters from fiction are essentially ambiguous. Gaver et al [39] argue that ambiguity can be an important resource for design. Drawing on fiction to develop pastiche scenarios is a direct response to the challenge of experience focussed design [13].

A number of fictional characters present themselves primarily through internal monologues, e.g. Bridget Jones [39] Adrian Mole [72] Shirley Valentine [60]. Others expose their emotional lives through dialogues with key confidantes, e.g. Elizabeth and Jane Bennett [3]. Elsewhere in fiction, although we do not have access to the private thoughts of an individual, we are nevertheless able to empathise with key characters so that we can imagine their emotional responses in novel situations. For example, we can imagine the conversations between Dexter’s [30] Inspector Morse and Sergeant Lewis about Lewis’s new iPod, or how Scarlett O’Hara [51] might respond when she discovers that Tara is too far from her telephone exchange to receive ADSL broadband. Carroll [18] highlights the idea of scenarios describing designs at various ‘levels of detail’. The openness of pastiche for exploring affective dimensions of design can be seen as related to this, but also being able to describe designs from various different perspectives (practical, technical, or affective).

Scenarios developed in collaborative workshops are often less explicit in relation to these emotional issues. Whilst individually authored pastiche scenarios offer a way to examine emotional responses to technology, in collaborative writing contexts, the pastiche characters offer the possibility of distancing between participants and emotionally sensitive subjects. For example, Dearden et al. [28] describe a collaboratively authored scenario in which the soap opera character Nick Cotton has cracked the authentication code on his elderly mother’s smart card and uses the card to steal books from the library. In writing this scenario, the participants showed themselves quite willing to discuss issues around identity theft within the family, without any reference to either themselves or to any other real individuals. The design discussion that followed led to a more detailed examination of options for using images in authentication, and resulted in changes to the authentication methods recommended in the project.

## 3 Comparing Examples

This section reflects on the use of pastiche scenarios and pastiche personae with reference to three specific examples from different projects which all focus on the same older character: Ebenezer Scrooge. All three of these examples are transcribed directly from the design documents created during those projects. The first example was created as part of the design process of the Net Neighbours project.

### 3.1 Pastiche Scenarios

Net Neighbours is a part befriending and part shopping scheme for older people. Volunteers are paired with older people living independently; they phone them up, have a chat, take their shopping order and place it for them online [11]. The scenario below was written by the first author as part of a series of scenarios in the style of Dickens' Christmas Carol, exploring different possible configurations of the scheme.

#### 3.1.1 *Bob Cratchit's Deposit*

The small cough which emerged from the clerk in the corner could, perhaps, have been construed as the result of the chill in the office air which was no warmer than that in the street, or, quite possibly, as the onset of a more serious and sinister ailment, but even the most attentive of physicians would not have diagnosed this tiny noise as the request for attention that it was and it was not noticed at all by the portly gentleman as he made his way, red faced and muttering, towards the door of Scrooge's office. Consequently Bob Cratchit was compelled to engage in a slight deception of both the portly gentleman and his employer in following him into the busy streets outside.

"Your handkerchief Sir!" Bob swept down to the floor and made the action of a man plucking up a piece of fallen silk though there was nothing between his fingers and thumb but dust as he hastened after the gentleman.

"Begging your pardon Sir" despite the ill temper caused by the interview with Bob's employer the portly gentleman was only too happy to give the breathless clerk the moment of his time requested.

"You see Sir, I was wondering if my poor Mother in law might avail herself of your service." Bob explained "She's been very ill you see and can't get out

very easily especially with the nights drawing on. Your home delivery service would be a Godsend Sir”

“I’m afraid that the mean spiritedness which your employer just displayed is far from unique to that individual. A number of our clients have defrauded us. Yes defrauded us, Sir, I shall say it again for there is no other word.” The gentleman spoke more in sorrow than anger “Regrettably all of our new clients must now pay a deposit of equal value to one shopping order.”

”But my Mother in law Sir, she lives from week to week. Paying a deposit would be like paying for the goods twice and this she could not do, not with the best will in the world.”

“Then I am afraid she is ineligible for our scheme. And if she wishes to thank any man she may seek an interview with the surviving partner of Scrooge and Marley’s!”

It was with an even heavier heart than usual that Bob resumed his stool.

“You’ll keep your Christmas by losing your situation” Scrooge remarked coldly “If you again mistake your work for picking up discarded handkerchiefs!”

This scenario recruits not only the characters from a *Christmas Carol* but also, the settings and the social backdrop and Dickens’ style of writing. It follows on from a scenario where Scrooge refuses to pay the portly gentleman for goods he has received in the past (Ibid). There is then a narrative progression between the two stories in which a timeline is suggested. Changes in how the shopping service is run are envisaged as consequences of the events that occur in the chain of scenarios. The care taken over mimicking the style, the inclusion of secondary characters and the creation of a plot that runs through each scenario may seem redundant. The first scenario describing Scrooge refusing to pay could have been done without rich descriptions of the office, his clerk and the portly gentlemen. However, their inclusion led to the consideration of possible problems that would not otherwise have arisen. The logic of the character suggests that Scrooge would defraud a charitable system designed to help those more vulnerable than him. If he had paid the bill in full and the system had worked smoothly this would not have been consistent with the source material. As previously noted this led to the consideration of using a deposit in the scheme. Again the logic of the characters (their poverty) could suggest no other

outcome than exclusion from the scheme. The unexpected about turns of fortune in Dickens's plots suggested that the portly gentleman was in fact a conman in one further scenario. This then pastiches not only character and style, but also narrative form. Although all of these scenarios were entirely anachronistic, there is much about the social world that Dickens described which is still relevant, not least the poverty of many older people.

Of course, writing such pastiche demands more time and attention from the scenario author than writing a persona based scenario, or even writing a plain scenario using a persona from fiction. This extra effort must be understood as trading time spent by the designer preparing resources, for the additional value contributed by users and other participants in design conversations. Such trade-offs are a feature of all participatory design techniques, and designers must constantly make these choices in the specific context of their projects. In the case of pastiche based on classic fiction, the effort may be reduced because many texts are out of copyright and freely available on line in searchable, cut and paste-able form. Some of the descriptions above, e.g., the "portly gentleman", are taken directly from Dickens's text. Some of the narration and dialogue is also directly quoted, for example "You'll keep your Christmas by losing your situation". Much of this pastiche then can be directly taken from the source. Clearly, the shopping service has been added to the original, but the style has been mimicked as closely as possible. This requires some creative work on the part of the scenario writer, but perhaps less than might be expected at first sight.

## **3.2 Pastiche Personae**

The following scenario was created in a workshop discussion where older people were asked to imagine Scrooge using a smart card system.

### ***3.2.1 Scrooge Renews his Bus Pass***

Gets out of his dusty bed - yawn, bah humbug - doesn't forget card

Moans about having to renew his card.

Knows the price so he puts just enough money onto the card. He knew he needed to renew the card because of a reminder delivered to the audio unit on the reader he has at home.

He catches the bus taking his regular route.

He wants to sit in the buggy seats, but his card will not activate gate

Moan - chunter

He swipes the card reader on the back of the seat in front because he wants to be alerted when he gets to the fair boundary (i.e., get off early to avoid a higher bus fare.)

Rather than recruit the entire scene of Victorian England and the web of relationships in which Scrooge is depicted, this scenario takes only the central character. Although the characterisation is economical, the use of Scrooge's catch phrase "bah humbug" is allusive enough to convey a sense of the personality. There is not much detail in the description of the background scene but enough, "the dusty bed", to convey some of the richness of Dickens' creation. Here the principle characteristics of Scrooge, his mean-ness, have a direct bearing on the action of the scenario – putting just enough money on the card, wanting to be alerted at the fare boundary to avoid a higher charge.

As previously noted, one advantage of using pastiche personae over a pastiche of the whole style is that it is less time consuming. But pastiche personae are also amenable to group based working. Here, older people's poverty could have a bearing on the design, and Scrooge's miserliness opens a space for exploring a subject that some might hesitate to discuss. Pastiche personae permit dynamic debates to lead to new scenarios driven by participants. However, there are dangers to the approach as the next section will indicate.

### **3.3 Deconstructive Personae**

The following scenario was again created in the context of a group discussion and scribed by the facilitator:

#### ***3.3.1 Scrooge helps Fagin attend a hospital appointment***

Scrooge picks Fagin up to take him for a hospital appointment. Scrooge is about to pay for parking but Fagin says, "No, use my card - parking is free for me because of my appointment."

To enter the hospital and signify his arrival, Fagin puts his card into the reader at the door.

ID verified by thumb print for Fagin but by number for Scrooge, who does not like the idea of thumb prints.

Fagin's card identifies him as the patient and his arrival is logged into the system. Information is returned to him to say he will be seen in 17 minutes. Both were thirsty so bought a bottle of water from the machine, paying with their cards.

On reaching the consultant, Fagin's medical records are downloaded from his card, telling the consultant all he/she needs to know, this saving valuable time.

Possible follow-up help and support is identified for Fagin, relevant to his condition, and social services are contacted and the information transferred to them and stored on Fagin's card - may include details such as necessary house adaptations, support care, etc. All of his X-ray and other test results are also stored on his card, and available to the hospital network. Other data on Fagin's card identifies that he is wheelchair user, so alerts the hospital to the kind of accommodation he needs re-room layout and size, etc.

Fagin's prescription is added to his card. This info goes to the pharmacy so his prescription is ready to pick up as he leaves.

A diary of all Fagin's future appointments is on the card, so no danger of double booking when he makes his next appointment in this clinic.

Discharge should also flag up any other necessary changes.

It could be argued that nothing would be lost in this scenario if the names "Fagin" and "Scrooge" were substituted with "user1" and "user2". There is absolutely no characterisation of either one, not even Scrooge's catchphrase is invoked. Neither of the characters behave in a manner that is consistent with the source material. Why would Scrooge help anyone, let alone Fagin, to the hospital? Some of the behaviour is directly contrary to the characters described, for example Scrooge offering to pay for the parking. Similarly Fagin, a career criminal, would be unlikely to happily use an ID card that not only contained all of his personal details, but also relayed it to an institution of the state. This then could be considered as a bad or failed scenario. However, it is not quite the case that nothing would be lost if the names Fagin and Scrooge were not invoked.

The term "deconstruction" was introduced by the philosopher and literary critic Jacques Derrida in the mid nineteen sixties, and there has been much debate about its meaning ever since. The sense of the word most pertinent here refers to a particular

strategy of reading. This technique pursues the contradictory and incoherent elements of a given text to produce new meanings and innovative interpretations. Marginalia such as footnotes are given rigorous attention that can result in an unravelling or deconstruction of a text's central argument [29]. The pastiche personas here though marginal and under-developed mitigate against the central argument of the scenario. By recruiting a deeply criminal character to illustrate the workings of this ID card, the scenario undoes or to use Derrida's term "deconstructs" itself. A critical consideration of the scenario would quickly reveal its flaws. It is unconvincing in a way that it would not be if it merely described "user1" and "user2". The use of pastiche personae then lays bare the rhetorical strategies of the scenario. This is a description of non-specific users in an ideal use situation. It is not a consideration of how this technology might impact on a complex social world. It is a reified description of system functionality that does not account for human agency and diversity. Nevertheless, it raises design issues almost in spite of itself. What would such a system mean to criminals and those who wish to remain outside of the state's purview. Would those who resisted the ID card be excluded from healthcare? How might the system be subverted by criminals? Wouldn't Fagin have used a forgery, how might that be obtained, what implications does this have for identity theft? These are all particularly relevant concerns when designing for older people whose fear of crime is well documented [1, 42]. Even poor evocations of pastiche persona then may serve to further critical reflection in the design process.

## **4. Discussion**

### **4.1 Defamiliarising Understandings of Older Users**

A major challenge in designing for older users is to avoid designing around simplistic understandings or stereotypes. In HCI, ethnography has been used to create detailed understandings of the workplace and more recently the home. These rich descriptions of everyday life often operate by making the familiar strange, and by problematising aspects of everyday life that most people would think they already understood very well [6]. The Russian literary critic Victor Shklovsky [63] identified literary devices to achieve the same effect: "defamiliarisation". This is a form of writing which makes the familiar strange by describing it in an unusual or obtuse way, and it has recently



been appropriated as a means of stimulating design [6]. It is particularly important to defamiliarise notions of the user when designing for older people.

It is often argued in cultural studies that the media is guilty of attacking and stereotyping older people. There are fewer older people on TV than other age groups; although there are an increasing number of “youthfully aged” characters, for the most part portrayals are negative [43]. It could be argued that characters like Abe Simpson are nothing more than stereotypes. While Grandpa may be a caricature, he is more than a stereotype if only because the Simpsons is aware of and satirises media representations of the elderly:

Grandpa: I am disgusted with the way old people are depicted on television. We are not all vibrant, fun loving sex maniacs. Many of us are bitter, resentful individuals who remember the good old days when entertainment was bland and inoffensive.” [70]

Positive stereotypes are potentially just as dangerous as negative ones, the challenge for design is to see older people as unique individuals (Thompson 2004).

A variety of other methods in HCI are available to help design teams to develop or access deeper, holistic understandings of users as unique and complex individuals with diverse motivations. Shyba and Tam [64] worked with theatrical performance practitioners to develop goal initiated scenarios. Schaffer [61] reports on the ‘Bollywood’ technique (developed by Apala Chavan and colleagues [20]) in which participants in a usability evaluation imagine themselves as characters in the melodramatic storyline of a Bollywood film. Newell et al. [53] describe a technique where professional actors observe and talk with older people. The actors then create characters based on their interpretation and enact scenes in a theatre setting for designers, who can then question the performers still ‘in character’. Djajadiningrat et al [37] populated scenarios with well known figures, such as the Pope, or stereotypes such as a drug dealer or a promiscuous woman to suggest extreme behaviours that might stimulate design (Ibid.). As Grudin [40] points out, humans have highly developed abilities to model and predict the behaviour of other individuals based on holistic understandings of one another. Both theatrical techniques and persona based techniques rely on this ability.

We would not wish to position pastiche techniques in opposition to these methods, rather we present them as a complementary way to support envisioning during conceptual design. In particular, pastiche methods may be cheaper to implement than acted scenarios, since they do not require the services of actors and camera operators or specific props. In comparison to persona based techniques, fiction and popular cultural sources provide a readily available pool of characters that can act in place of, or in addition to, personas created specifically for a project.

## **4.2 Choosing Characters**

The selection of characters is, of course, dependent on the particular design project. Criteria for selection are similar to those in the construction of a persona [e.g., 24]. Many of these criteria focus on the target demographic of the envisaged technology, which provide constraints by gender, occupation, nationality, ethnicity, etc.. Age is very likely to be a constraint, and if the target demographic is older people then this narrows the field of choice considerably. This process of selection can be compared to the sampling techniques typically used in ethnographic studies [13]. Demographics are not, however the only consideration. The characters must be known at least to the designer if not the design team. While a good pastiche will introduce the character sufficiently well for those with no previous knowledge of them to have an idea of who they are, a character that is known to a group will probably provide a greater impetus for discussion in a participatory design context.

A reasonable pastiche could be created using only key descriptions, catchphrases and quotation. Once the source material has been selected, much of the work of personae construction has already been done. Most literary characters come with the bare bones of Cooper's [24] persona – a name, gender, occupation, age and so on; but they also have a rich back story and character.

## **4.3 Culture as a Shared Resource**

The construction of any scenario is a creative act. Bell [7] suggests that “The best characters become part of our shared cultural experience” and asks “how many of us have discussed the characters from our favourite books or TV shows as if they were real people?” [Ibid, p.95]. A specific benefit of using literature and other cultural forms to provide characters for scenarios is the fact that such resources are part of a shared cultural backdrop. Whilst such shared experience is rarely universal, many

characters are well-known, and when unknown can be readily conveyed to new audiences.

To aid designers who want to experiment with pastiche techniques, Table 1 is a list of older people featured not only in popular film and television, but also the “classics” of the literary canon. It is based on a trawl through websites that aim to list the top 100 films, TV sitcoms or other cultural forms, and serves only as an indication of the array of characters available for pastiche. The table has been added to the Technology and Social Action wiki ([www.technologyandsocialaction.org](http://www.technologyandsocialaction.org)) and can be updated by members.

<b>Table 1</b>
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Of course the categories in this table are not rigid and many of the characters in film or drama are drawn from novels. The lists reflect mainly European and American literature and the film and television examples are entirely biased towards the UK and the USA. The lists are suggestive rather than exhaustive. Although most of the characters are in their sixties and so would be considered “older people” by current UK government definitions, it should be noted that chronology is not the only measure of age. Chronological age indicates the number of years a person has lived, but this does not necessarily reflect biological age which is based on overall health compared to the general population [52]. Further, old age is a social and cultural category and what is considered to be “old age” is dependent on average life expectancies. Life expectancy in the west is currently longer than it has been at any other time in history. An “old” ancient Greek then would be much younger (in terms of chronology) than an old American living in twenty first century Florida.

While most of the characters are fictional, some are based on historical figures (e.g., Ghandi). This suggests the possibility of recruiting historical characters for pastiche. It would be possible, for instance, to imagine a mobility scooter for an aged Winston Churchill, or a bathroom hoist for Margaret Thatcher. The techniques of pastiche could be employed in the same way – taking manners of speech and characteristics. This might be particularly useful for groups who are massively under represented in popular culture, such as people with disabilities.

Although this is by no means a complete list, it indicates the range of characters that might be drawn upon. Some of the characters are extreme (e.g., Abe Simpson), but even where they are relatively ordinary (e.g., Pat Butcher from Eastenders) the source

material provides a depth which would be absent from a stereotype. Whilst shared knowledge of these characters can suggest common interpretations, they can also be contested. Scrooge, again as an example, changes during the course of the novel, he can be read as a villain but also as a victim.

The richly imagined and fully drawn characters of literary fiction draw our attention to the fact that older people are not a homogenous group. Fiction places personality and social context back at the fore of the user or person under consideration, and age is not the defining characteristic. Scrooge [34] is rich and miserly before he is old; Little Nell's grandfather [32] is an inveterate gambler and this matters every bit as much as his age; Miss Havesham [33] is embittered and delusional and again this makes her much more than a mere representative of a demographic group. Exploring how these characters might encounter future technology disrupts our expectations of technology scenarios and can serve to stimulate enquiry and discussion.

## **4.4 Fantasy and Reality**

The literary critic Frederic Jameson notes that fantasy depends on realism:

“Fantasy demands a certain realism in order to gain even provisional or ephemeral libidinal and aesthetic credit, and this is indeed the deeper truth –mechanism of narrative itself (and the source of the adage about trusting the tale rather than the teller and his own personal ideology).”[45]

Design scenarios are a form of imaginative and creative writing, or fantasy. In order to be convincing, they must convey the kind of realism that Jameson describes above. But if this realism is achieved through idealised portrayals of the user then they are unlikely to be useful in terms of identifying problems or improving design. Using rich characters drawn from existing cultural sources helps to identify the limits of design fantasy. One way to test or play with scenarios of older people using technology might be to substitute characters drawn from the table above. This process could suggest design problems previously overlooked or make explicit some of the assumptions about older people that are implicitly embedded in scenarios. Although designers may be convinced by the technological narratives that they have created, users can remain sceptical and may fail to adopt the roles that designers have

envisaged for them [57]. Future technologies are imagined along with fictional people to use them (Ibid). In some respects imagining users is more difficult than imagining the technology. It is commonly argued that “character drives plot” (e.g., Dunmore [50]) in the sense that the author’s understanding of a character guides and constrains the way that story lines develop. Helen Dunmore talks of ‘getting to know the character better’, reflecting a sense that the character has some form of coherent independent existence separate from the author herself. Wright & McCarthy [74], drawing on the work of literary critic Mikhail Bakhtin, discuss our sense of characters when reading a novel as separate ‘centres of value ...’ and how ‘... we develop an understanding of their moment to moment concerns and the emotional-volitional nature of their agency’ [ibid., p15]. The fully imagined characters of fiction will resist being portrayed in certain situations (e.g., Scrooge and Fagin in the deconstructive personae example). By recruiting characters from fiction designers make scenarios that answer back, that are in Bakhtin’s sense, dialogical.

As Schon [62] argues, designing can be understood as a ‘conversation with materials’, where the materials resist and answer back to the designer. The same metaphor can be applied to the representational media used in designing interaction [27], where effective representational media resist the actions of the designer in ways that reflect the media of production, and through that resistance, inform the creative process. The characters used for pastiche in scenario writing wrest control away from the designer at the level of fiction in the way that actual users remove the designer’s control over reality.

## **5. Conclusion**

### **5.1 Pros and Cons of Pastiche Techniques**

In this paper we have reflected on our experiences of using pastiche techniques, and developed a clearer understanding of the way that this approach plays out in different usages. There is a large literature on the use of scenarios and personas which reflects on when and where their use is most appropriate [24, 19, 36, 56]. In comparison to these established approaches to personae and scenarios, pastiche techniques are a low cost, high speed, alternative that can be very valuable for the early, exploratory, conceptual, stages of design. We have argued: that pastiche can provide common ground amongst design stakeholders and an engaging and stimulating basis for

discussion; that the technique is generative, because additional characters and features from the world that the character inhabits can be recruited to develop further ideas; and that the use of fiction can expose the use of rhetoric in scenarios and that this is particularly useful when designing for older people. Possible limitations to the technique are: it is sometimes difficult to find suitable characters that are familiar to all members of the design team; that some demographic groups are severely under represented in popular cultural forms, for example, there are very few richly drawn characters with hearing, visual or mobility impairments. However, where characters are available, pastiche provides a way of testing early design ideas at very low cost. Good interaction design relies heavily on iteration and the cost of each iteration increases throughout the development lifecycle. Pastiche allows a design team to very quickly generate and filter ideas at low cost at the start of a project.

## **5.2 The Delusion of Perpetual Youth**

For the first time in human history older people will very soon outnumber the young. Projections from the Government Actuary's Department estimate that by 2014 the UK will reach the point when there are more people over sixty five than under sixteen [46]. Care resources are already strained and governments believe that our ability to cope is predicated on advances in technologies that help older people live independently for longer. The “developed” or rich world is aware of the challenges that its ageing societies present, but it risks dealing with them by telling stories of technological utopias. The UK government set a deadline of 2010 to put telecare into the homes of everyone that needs it, although even when the deadline was set it was more or less clear that it would not be met [25]. It may be then that the vision of an aged population living independently with the assistance of technology is somewhat optimistic. Although design scenarios are usually concerned with a shorter termed future than those imagined by professional fantasists, they can nevertheless be forms of utopian thinking.

In this paper, we have argued that design scenarios must be predicated on meaningful notions not only of the use situation of the imagined technology, but also of the user. Given that western society as a whole has great difficulty representing old age, it is likely that individual designers will also struggle. Idealised and stereotypical representations will not meet this challenge.

Stereotypes are not meaningless, rather their meanings are limited and predictable. The meanings of rounded fictional characters and even caricatures are less stable, they are open to interpretation, appropriation and multiple meanings. They are, in this sense, more meaningful. Pastiche scenarios open fiction as a resource for the most fully imagined representations of old age that the culture has to offer.

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## References

1. Age Concern (2002) Concerned About Ageing? The needs of older people: key issues and evidence. London, Age Concern England.
2. Alexander, I & Maiden, N. (Eds.) 2004. Scenarios, Stories, Use Cases Through the Systems Development Life-Cycle. Chichester, UK, Wiley.
3. Austen J. (1999) *Pride and Prejudice*. Oxford University Press.
4. Bakhtin M. M. (1984) *Problems of Dostoevsky's Poetics*. University of Minnesota Press
5. Bannon, L (1991) From Human Factors to Human Actors, In Greenbaum, J. & Kyng, M. *Design at Work*, ....
6. Bell G., Blythe M. Sengers P., (2005) [Making By Making Strange: Defamiliarisation and the Design of Domestic Technologies](#) CM Transactions on Computer-Human Interaction (TOCHI) Volume 12 , Issue 2 (June 2005) CM Transactions on Computer-Human Interaction (TOCHI) pp 149-173
7. Bell, J., 2001. Characterisation, In, Bell J. & Magrs P. (Eds.) *The Creative Writing Coursebook*. Basingstoke, UK, Macmillan. Pp 95 – 109.
8. Benyon D. R. & Macaulay, C., 2002. Scenario and the HCI-SE design problem. *Interacting with Computers*, 14(4), 297 – 405.
9. Benyon D & Macaulay, C., 2004. A scenario-based design method for human-centred interaction design. In Alexander, I & Maiden, N. (Eds.) *Scenarios, Stories, Use Cases Through the Systems Development Life-Cycle* pp 211 - 235. Chichester, UK, Wiley.
10. Blythe M. (2004) [Pastiche Scenarios](#) in *More Funology Special Issue of Interactions* (eds Blythe Hassenzahl and Wright).
11. Blythe, M. and Monk, A.F. (2005) Net Neighbours: adapting HCI methods to cross the digital divide. *Interacting with Computers*, 17, 35-56.

12. Blythe M & Monk A Doughty K., (2005) Socially Dependable Design: The Challenge of Ageing Populations for HCI. *Interacting with Computers*
13. Blythe M., and Wright P., (2006) Pastiche Scenarios: Fiction as a Resource for Experience Centred Design. *Interacting with Computers*. Volume 18, Issue 5 , September 2006, Pages 1139-1164
14. Blythe M., Frohlich D., Robinson J., and Stricevic M., (2006a) The “Weegie” Installation: Audiophotography and Community Storytelling. *Art Works, Proceedings of The First International Symposium on Culture, Creativity and Interaction Design, CCID 2006*. LeonardoNet Network. HCI2006 Queen Mary’s London
15. Blythe M., Manandhar S., Wright P., Gaver B., (2006b) The Literary Fridge: Books of the Moment and Digital Fridge Poetry. *Art Works, Proceedings of The First International Symposium on Culture, Creativity and Interaction Design, CCID 2006*. LeonardoNet Network. HCI2006 Queen Mary’s London
16. Buchenau and Suri, 2000 Experience Prototyping In proceedings of DIS 2000. ACM Press, New York
17. Carroll, JM. 1995. Scenario-based design: envisioning work and technology in system development, John Wiley & Sons, Inc., New York, NY
18. Carroll JM., 2000a. Five reasons for scenario-based design. *Interacting with computers*; 13: 43-60.
19. Carroll JM 2000b Making Use: Scenario Based Design of Human Computer Interaction. MIT Press. Cambridge Massachusetts
20. Chavan, A. L. Another culture, another method. In *HCI2005 Conference Proceedings {CD Rom}*, Lawrence Erlbaum Associates, 2005.
21. Clifford, J. Marcus G.E., (Eds.). (1986). *Writing Culture: The Poetics and Politics of Ethnography*: University of California Press
22. Cohen, L: Old Age: Cultural and Critical Perspectives. *Anthropology*. 1994, 23: 137-58
23. Coleman, R: Living Longer: The New Context For Design. The Design Council 2001.
24. Cooper, A. L. (1999) The inmates are running the asylum: Why high-tech products drive us crazy and how to restore the sanity. Indianapolis: Sams.
25. Curry R.G, Tinoco M.T, Wardle D. (2002) The Use of Information and Communication Technology (ICT) to Support Independent Living for Older and Disabled People. London, Department of Health.
26. Davis, M. (2003) Theoretical Foundations for Experiential Systems Design. *Proceedings of the 2003 ACM SIGMM workshop on Experiential telepresence* pp 45 – 52
27. Dearden, A. (2006) Design as conversation with digital materials. *Design Studies* 27(3) 399 - 421.
28. A Dearden, A Lauener, F Slack, C Roast & S Cassidy, (2006). Make it so! Jean-Luc Picard, Bart Simpson and the Design of e-Public Services. In G Jacucci, F Kensing, I Wagner & J Blomberg (Eds) *Proceedings of PDC 2006: Expanding Boundaries in Design*, pp. 67 - 76. ACM Press.
29. Derrida (2004) *Writing and Difference*, trans. Alan Bass (London and New York: Routledge, 2004).
30. Dexter, C. *Last Bus to Woodstock* (1975). Pan Crime.
31. Diaper D. (2002) Scenarios and Task Analysis. *Interacting with Computers* Volume 14, Issue 4, 1 July 2002, Pages 379-395
32. Dickens C (1997) *The Old Curiosity Shop*. Oxford University Press
33. Dickens C (1998) *Great Expectations*. Peterborough. Broadview Press
34. Dickens C. (2003). *A Christmas Carol*. Peterborough. Broadview Press
35. Dickens C. (2005) *The Adventures of Oliver Twist*. Peterborough. Broadview Press
36. Dix A., Finlay J., Abowd G. & Beale R., 1998, *Human Computer Interaction* 2nd Edition, (Prentice Hall)
37. Djajadiningrat, J. P., Gaver, W.W., Frens J.W (2000) Interaction relabelling and extreme characters: Methods for exploring aesthetic interactions *Proceedings of the 2000 Conference on Designing Interactive Systems*. ACM Press, 2000: 66-71



38. Forlizzi, J. & Ford, S. (2000) The Building Blocks of Experience: An Early Framework for Interaction Designers. IDIS 2000 seminar. Communications of the ACM, pp. 419– 423
39. Fielding, H. (1996). *Bridget Jones's Diary*. Picador,
40. Gaver, W; Beaver, J; Benford, S., (2003) Ambiguity As A Resource For Design. Chi2003. (Ft Lauderdale, Florida Chi) Conference Proceedings 233-240
41. Grudin J., (2006) Why Persona's Work: The Psychological Evidence. In Pruitt J., Adlin T., *The Persona Lifecycle: Keeping People in Mind Throughout the Product Design Cycle* Elseiver-
42. Help The Aged (2002a) *Older People and fear of Crime: A report by the Help the Aged Policy Team*. London Help The Aged
43. Healey T. & Ross K. (2002) Growing old invisibly: older viewers talk television *Media, Culture & Society*, Vol. 24, No. 1, 105-120 (2002) SAGE Publication
44. Hertzum, M. (2003) Making use of scenarios: A field study of conceptual design. *International Journal of Human-Computer Studies*. 58 (2) pp. 215-239.
45. Jameson, F. 2005 *Archaeologies of the Future: The Desire Called Utopia and other Science Fictions*. Verso, London, New York
46. Jeavans C. (2004) Welcome to the Ageing Future. BBC news. 29 November, 2004.  
[http://news.bbc.co.uk/2/hi/uk\\_news/4012797.stm](http://news.bbc.co.uk/2/hi/uk_news/4012797.stm) (accessed 1.05.07)
47. Lauener, A., Slack, F., Dearden, A., Roast, C., Yates, S., Cassidy, S. (2006) Methodologies for working with older people: pastiche scenarios. *Gerontechnology*; 5(1):16-28
48. McCarthy, J. and Wright, P. (2004) *Technology as experience*. Cambridge MA: MIT Press.
49. McCarthy, J., Wright, P.C. (2005) Putting “felt-life” at the centre of human–computer interaction (HCI). *Cognition Technology and Work* Vol. 7.4 pp. 262-271.
50. Macdonald, M 2003. A writer's life: Helen Dunmore (Filed: 21/09/2003) *Daily Telegraph*, London.
51. Mitchell, M. 1936. *Gone with the Wind*. Macmillan.
52. Mitnitski A., Graham J., Mogilner A., Rockwood K., Frailty, fitness and late-life mortality in relation to chronological and biological age. *BMC Geriatrics* 2002, 2:1 pp 1-8
53. Newell, A. F., Morgan, M. E. Gregor, P. and Carmichael, A., 2006. Theatre as an intermediary between users and CHI designers, *Proceedings of CHI 2006*, pp.111-117. ACM Press.
54. Nielsen, L. (2002) From user to character: An investigation into user-descriptions in scenarios. In *proceedings of designing Interactive Systems (DIS '02)*. ACM Press pp. 99-104.
55. Norman, D.A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. New York: Basic Books.
56. Preece, J., Rogers, Y. & Sharp, H., 2002 *Interaction design: beyond human-computer interaction*. New York: Wiley.
57. Redström, J. 2006. Towards user design? On the shift from object to user as the subject of design. *Design Studies*, 27 (1), 123 – 139.
58. Richmond, R & Coffman A. (Eds) 1997 *The Simpsons: A Complete Guide to our Favourite Family*. Harper perennial Library
59. Rosson and Carroll (2002) *Usability Engineering*. Morgan Kaufman
60. Russell, W., 1988. *Shirley Valentine: A play*. Samuel French.
61. Schaffer, E, 2002. The Bollywood Technique. *Human Factors International*, UI Design Newsletter, June 2002. Available from <http://www.humanfactors.com/downloads/jun02.asp#bollywood> (last visited, 12/4/2007)
62. Schon, D. A. 1983. *The Reflective Practitioner*, New York: Basic Books.

63. Shklovsky, V. 1986. Art as Technique, in Contemporary Literary Criticism. Modernism Through Poststructuralism. Edited and with Introductions by Robert Con Davis. Longman Press, New York and London: 56
64. Shyba and Tam (2005) Developing character personas and scenarios vital steps in theatrical performance and HCI goal-directed design Creativity and Cognition Proceedings 2005 2005, Pages 187-194
65. The Simpsons. *Burns, Baby Burns*. Production code 4F05. US Airdate 17<sup>th</sup> Nov. 1996
66. The Simpsons. *Lisa The Vegetarian*. Production code 3F03. US Airdate 15.Oct 1995
67. The Simpsons. *Curse of the Flying Hellfish*. Production code 3F19 US Airdate 28-Apr-1996
68. The Simpsons. *Lisa's First Word*. Production code 9F08. US Airdate 3 Dec 1992
69. The Simpsons. *Lisa vs Malibu Stacy*. Production code 1F12. US Airdate 17 Feb 1994
70. The Simpsons. *Bart the General*. Production code 7G05. US Airdate 4<sup>th</sup> Feb 1990
71. Thompson N. 2004 Illness, Crisis, & Loss Baywood Volume 12, Number 1 / 2004
72. Townsend, S., The Secret Diary of Adrian Mole aged 13 3/4 Methuen, 1982
73. Wodehouse, P.G. 1919. My Man Jeeves, George Newnes.
74. Wright, P.C. and McCarthy, J. (2005) The value of the novel in designing for experience. In Pirhonen, A., Isomäki, H., Roast, C. and Saariluoma, P. (Eds.) Future Interaction Design. Springer. pp. 9-30. in understanding work for design.

Table 1: Array of Older Characters

Film	<p><i>Arsenic and Old Lace</i>: Martha and Abby Brewster; <i>The ladykillers</i>: Mrs. Louisa Wilberforce; <i>Goodbye to Mr Chips</i>: Mr Chips; <i>Citizen Kane</i>: Charles Foster Kane; <i>Sunset Boulevard</i>: Norma Desmond; <i>My Fair Lady</i>: Colonel Pickering <i>The Godfather</i>: Don Corleone; <i>Marathon Man</i>: Dr. Christian Szell; <i>The Sunshine Boys</i>: Willy Clark, Al Lewis; <i>Charlie and the Chocolate Factory</i>: The grandparents; <i>On Golden Pond</i>: Norman and Ethel Thayer; <i>Rocky Balboa</i>: Rocky; <i>Star Wars</i>: Ben Kenobi, Yoda, Emperor Palpatine; <i>Cocoon</i>: the Cast; <i>Back to the Future</i>: Dr Emmett Brown; <i>Indiana Jones and the last Crusade</i>: Professor Henry Jones; <i>Gandhi</i>: Gandhi; <i>The remains of the day</i>: Mr Stevens; <i>Shawshank Redemption</i>: Ellis Boyd 'Red' Redding; <i>The madness of king George</i>: King George; <i>Grumpy Old Men</i>: John Gustafson, Max Goldman, Ariel Truax, Grandpa Gustafson; <i>Harry Potter</i>: Dumbledore; Minerva McGonagall; <i>Gladiator</i>: Marcus Aurelius; Proximo; <i>Lord of the Rings</i>: Gandalf, Saruman, Theoden, Gladriel, Biblo Baggins; <i>Million Dollar Baby</i>: Frankie Dunn; <i>Space Cowboys</i> The Cast; <i>Venus</i>: Maurice, Ian</p>
Sitcom	<p><i>Step toe and Son</i>; <i>Step toe</i>; <i>Till Death Do Us part</i>: Alf and Elsie Garnett; <i>Dad's Army</i>: most of the cast; <i>All In The Family</i>: Archie Bunker; <i>Sanford and Son</i>: Sanford; <i>Fawlty Towers</i>: The Major; <i>Last of the summer wine</i>: the cast; <i>The Cosby Show</i>: the grandparents; <i>The Golden Girls</i>: Sophia Petrillo; <i>Cheers</i>: Coach; <i>Three's Company</i>: Mr Firley; <i>Waiting for God</i>: Diana Trent, Tom Ballard; <i>Roseanne</i> – Roseanne's Mother; <i>Everybody Loves Raymond</i>: Frank and Marie Barone; <i>One Foot In The Grave</i>: Margaret and Victor Meldrew; <i>Absolutely Fabulous</i>: Edina's mother; <i>Father Ted</i>: Father Jack; <i>The Royle Family</i>: Nan; <i>The Simpsons</i>: Grandpa Simpson, Jasper, Bea; <i>Frasier</i>: Martin Crane; <i>Seinfeld</i>: Mr and Mrs Seinfeld; Mr and Mrs Constanza; <i>South Park</i>, Stan's grandpa; <i>Family Guy</i>: Francis Griffin; <i>Futurama</i>: Professor Farnsworth and Mom; <i>Catherine Tate Show</i>: cockney granny; <i>The Kumars at no 42</i>: Sushila</p>
Drama	<p><i>Coronation Street</i>: Betty Sharples, Annie Walker, Stan and Hilda Ogden, Les Battersbea; <i>Coronation Street</i>: Betty Sharples, Annie Walker, Stan and Hilda Ogden, Les Battersbea; <i>Neighbours</i>: Mrs Mangle, Lou, Madge; <i>Emmerdale</i>: Seth, Betty Eagleton; <i>The Young and the Restless</i>: John Abbot, Victor Newman; <i>The Waltons</i>, Grandma and Grandpa Walton; <i>Dallas</i>: Miss Ellie, Clayton Farlow; <i>The Rockford Files</i>: Rocky; <i>Diagnosis Murder</i>: Dr Mark Sloan; <i>Matlock</i>: Matlock; <i>Boston Legal</i>: Denny Crane; <i>I Claudius</i>: Augustus, Livia, Claudius; <i>Brideshead Revisited</i>: Edward Ryder <i>The Sopranos</i>: Livia Soprano, Junior Soprano, Michelle Feech La Manna, Carmine Lupertazzi; <i>Dukes of Hazard</i>: Uncle Jessie; <i>Rumpole of the Bailey</i>: Hilda and Horace Rumpole; <i>Talking Heads</i>: Muriel, Doris <i>Cold Comfort Farm</i> (Gibbons) Great Aunt Ada Doom</p>

Novels, Short Stories	<p><i>Gulliver's Travels</i> (Swift): The Struldbruggs; <i>120 Days of Sodom</i> (De Sade): Président de Curval; <i>Great Expectations</i> (Dickens):</p> <p>The Aged P, Miss Havesham; <i>A Christmas Carol</i> (Dickens): Scrooge; <i>The Old Curiosity Shop</i> (Dickens): Nell's Grandfather; <i>Oliver Twist</i> (Dickens): Fagin; <i>Treasure Island</i> (Stevenson): Long John Silver; <i>Les Misérables</i> (Hugo): Jean Valjean; <i>The Brothers Karamazov</i> (Dostoevsky): Fyodor Pavlovich Karamazov, Zosima, the elder; <i>Crime and Punishment</i> (Dostoevsky): Katerina Ivanovna Marmeladova Alyona Ivanovna; <i>Dubliners</i> (Joyce): Father Flynn; <i>She</i> (Haggard): – Ayesha; <i>The Golf Stories</i> (Wodehouse): The oldest member; <i>Blandings books</i> (Wodehouse): Lord Emsworth, Galahad; <i>Jeeves and Wooster Stories</i> (Wodehouse): Aunt Agatha, Aunt Dahlia; <i>Rip Van Winkle</i> (Irving); <i>The Lion, The Witch and the Wardrobe</i> (Lewis): The Professor; <i>Miss Marple</i> (Christie); <i>Molloy</i> (Becket) Molloy <i>Malone Dies</i> (Becket): Malone; <i>Mrs Dalloway</i> (Woolf): Clarissa and Richard Dalloway, Sally; <i>Earthly Powers</i> (Burgess): Kenneth Toomey; <i>Adrian Mole</i> (Townsend): Bert Baxter; <i>The Old Devils</i> (Amis): Alun and Rhiannon Weaver; <i>Love in the Time of Cholera</i> (Marquez): Florentino Ariza and Fermina Daza; <i>Captain Correlli's Mandolin</i> (De Bernieres): Dr. Iannis; <i>Regeneration Trilogy</i> (Barker): Billy Prior; <i>Memories of my melancholy whores</i> (Marquez): Protagonist</p>
Poetry, Plays, Other	<p><i>Plato's Dialogues</i>: Socrates; <i>Greek Mythology</i>: Cronos, Zeus, Tiresias; <i>The Divine Comedy</i> (Dante): Virgil; <i>Morte D'Arthur</i> (Malory): Merlin; <i>The Decameron</i> (Boccaccio): Messer Ricciardo; <i>King Lear</i> (Shakespeare): Lear, Gloucester; <i>Macbeth</i> (Shakespeare): the three witches; <i>Titus Andronicus</i> (Shakespeare): Titus; <i>The Tempest</i> (Shakespeare): Prospero; <i>Romeo and Juliet</i> (Shakespeare): Friar Lawrence, Montague, Capulet; <i>Henry 4<sup>th</sup> pt 1 &amp; 2</i> (Shakespeare): John Falstaff; <i>Julius Caesar</i>: Caesar; <i>The Ancient Mariner</i> (Coleridge); <i>Importance of Being Earnest</i> (Wilde): Lady Bracknell; <i>Mother Courage</i> (Brecht): the protagonist; <i>The Cherry Orchard</i> (Chekov): Madame Ranevskaya; <i>The Caretaker</i> (Pinter): Aston</p>